TECHNOLOGY DEPT.

NEW EQUIPMENT DIGEST

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August, 1951

Volume 16—Number 8

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DETROIT

CHECK AND PASS ALONG

✓	NAME	See No.

Use Inquiry Slips—Pages 8 and 72

EQUIPMENT • MATERIALS • PROCESSES • DESIGNS • APPLICATIONS • LITERATURE

FIRE EXTINGUISHING HEAD
designed for fixed piping systems

For automatic as well as open deluge use, T-Head for sprinkler systems has directional wide angle, medium velocity discharge and is installed in pendent position. Sprinkler can be used as either open or sealed head. The latter combines principles of the WaterFOG nozzle with construction of the figure 4 fusible element in the regular sprinkler head. T-Head design breaks up water into fog pattern fine enough to completely fill area from ceiling down to floor. Wide angle distribution near ceiling prevents gas and flame from mushrooming and needlessly setting off adjacent heads. Made by **Rockwood Sprinkler Co.,** 44 Harlow St., Worcester 5, Mass.

▲ For more details circle **NED-5900** on enclosed inquiry slip ▲

SYNTHETIC BRISTLES
efficient for applying paint

Highly efficient in carrying and applying paint, Neoceta synthetic paint brush bristle has durability, paint carrying capacity and elasticity required of good paint brushes. Capillarity has been improved by substitution of multiple small channels for large single channel in filament. This change also improves retention and delivery of paint. Red Stripe brushes with these improved bristles resist softening effect of water, making them applicable for use with water-thinned finishes. Because rate of wear is same as for hog's bristle, Neoceta bristle can be combined with natural product in brushes. Made by **Pittsburgh Plate Glass Co.,** Brush Div., Dept. BN, 3221 Frederick Ave., Baltimore 29, Md.

▲ For more details circle **NED-5901** on enclosed inquiry slip ▲

OPEN END RATCHET WRENCH
embodies 64 socket sizes

Features such as the open end, full hinge, square drive and removable handle permit TAC wrench to do the work of open end, crescent, box, socket, ratchet and crowfoot

wrenches. With sockets from ⅜ to 4-in., tool can be used with torque handle for torque rated fittings. Open-end characteristic allows wrench head and socket to fit on to tubing and down on the fittings. Additional features include ratchet arc as small as 5 degrees, extra thin wall sockets and compactness in design. Adaptors are snapped in to allow ordinary sockets to be used with wrench. Made by **Tubing Appliance Co.,** 10321 Anza Ave., Los Angeles 45, Calif.

▲ For more details circle **NED-5902** on enclosed inquiry slip ▲

BAND SAW GUIDE
minimizes breakage

Three ball bearing wheels of model No. 20 band saw guide reduce danger of saw breakage and support working portion of blade so that increased amount of work can be performed. When 36-in. band saw machines are equipped with this guide and blade is held at 45-degree angle, material can be cut to any length. Guide is adjustable to width, thickness and desired angle of blade. Made by **Paddock Tool Co.,** 1418 Walnut St., Kansas City, Mo.

▲ For more details circle **NED-5903** on enclosed inquiry slip ▲

HAND DRYER
dries hands in 20 seconds or less

Heating instantly at touch of button, this hand dryer completely drys hands in 20 seconds or less. Nozzle can be rotated 360 degrees to provide face drying when required. Machine turns itself off after 30 seconds. Mechanism is tamperproof. Automatic circuit breaker prevents heat element from burning out under any conditions. Concealed mounting bolts prevent removal from wall. Dryer is made with rustproof castings, porcelain enamel finish and chrome plated fittings. Offered by **National Dryer Sales Corp.,** 616 W. Adams St., Chicago 6, Ill.

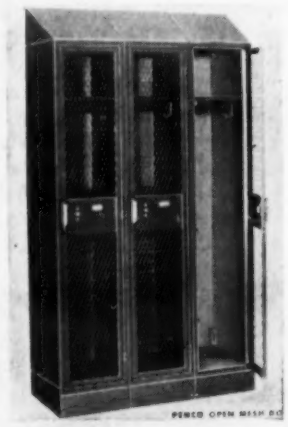
▲ For more details circle **NED-5904** on enclosed inquiry slip ▲

BELT TYPE CONVEYER
facilitates stacking operations

Western type belt conveyer, featuring reversible belt and easy moveability, has power-driven "receive" section which takes packages from roller and wheel conveyer lines. Machines are shipped complete with electrical equipment, including motor, starter and cord. They are available with 12 and 16-in. belt widths and in 12, 16 and 19-ft lengths. Made by **Mathews Conveyer Co.,** 188 Tenth St., Ellwood City, Pa.

▲ For more details circle **NED-5905** on enclosed inquiry slip ▲

STEEL LOCKER
features open mesh door



Open mesh door of this Air-Lite steel locker affords ample ventilation and permits light to reach work clothes stored within. Flattened expanded metal door has ¾-in. mesh openings which are small enough to prevent thefts through door. Locker can be obtained in single or double tier types in 24 standard sizes and finished in green, gray or brown baked enamel. It can be supplied without slope top or closed base. Made by **Penn Metal Corp. of Penna.,** 50 Oregon Ave., Philadelphia 48, Pa.

▲ For more details circle **NED-5906** on enclosed inquiry slip ▲

GUMMED TAPE DISPENSER
telephone type dial selects length

A twist of telephone type dial on Dial-Taper electric tape dispensing machine supplies a desired length of tape measured accurately, cut off cleanly and moistened with hot water. Actuating dial starts and stops machine automatically. Operating on 110 v, 60 cycle ac, it handles tape from 1 to 3 in. wide and rolls up to 9 in. diameter. Adjustments at factory allow use with cloth or filament inserted tapes. Adjustable moistening system makes use of 1 quart water bottle. Machine measures 9 x 10 x 21 in. and weighs 50 lb. Made by **Marsh Stencil Machine Co.,** Belleville, Ill.

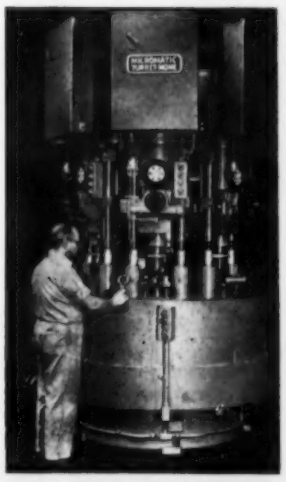
▲ For more details circle **NED-5907** on enclosed inquiry slip ▲

MASONRY DRILL BIT
has carbide tip and removable center

Equipped with removable Cyclo-Center which accurately locates and starts the hole, this masonry drill bit with carbide tip is designed for drilling in concrete, glazed tile and other hard masonry materials. As soon as hole is spotted, center is removed. Bit is intended for use with rotary type drill for holes from ¾ to 2 in. diameter. Dust is expelled by core as it drills because of machined-in spiral threads running full length of body. Each bit has port opening for cleaning out core. Made by **New England Carbide Tool Co.,** 54 Brookline St., Cambridge 39, Mass.

▲ For more details circle **NED-5908** on enclosed inquiry slip ▲

PRODUCTION HONING MACHINE
precision finishes bores up to 4 in. in diameter and up to 2 in. long



Precise tolerances in bores that are short in proportion to their diameter are held with this production honing machine. Single motor mounted on spindle housing powers both the rotating and reciprocating motion. Positive mechanical stroke is adjustable up to 2 in., and adjusting head is designed into spindle housing with the expansion indicator dial at eye level. Expansion of tool can be regulated manually or with hydraulically controlled Microdial.

In single unit machine, fixture saddle is raised by air cylinder, and Microdial is powered by air operated intensifying converter. For high production, four or six units are mounted on rotating base to make up illustrated Turret-Hone. On this machine, turret rotates continually at 2 rpm, and operator unloads and loads workpiece in fixtures as they pass. Machines can be furnished with automatic loading and work ejection. Typical of performance is precision honing of automotive connecting rods at rate of over 700 rods per hour. Made by **Micromatic Hone Corp.,** 8102 Schoolcraft Ave., Detroit 4, Mich.

▲ For more details circle **NED-5909** on enclosed inquiry slip ▲

VALVAIR Diversatility undertakes to fill ANY Air Control Requirement!

9 DIFFERENT CONTROL ASSEMBLIES

5 BODY STYLES IN 5 PIPE SIZES

WITH OR WITHOUT SPRING RETURN

Styles: 2-way, 3-way and 4-way open-end exhaust. 3-way and 4-way piped exhaust. For controlling air, water, inert gas, vacuum or oil pressures up 175 p. s. i.; temperatures up to 140°F.
Sizes: 1/4", 3/8", 1/2", 3/4", 1".

9 "ENDS"
Knob, lever, clevis, cam, foot, treadle, solenoid, cylinder, diaphragm. All single or double.

VALVAIR CORPORATION • 454 Morgan Avenue, Akron 11, Ohio
AFFILIATE: SINCLAIR-COLLINS VALVE CO.

Rely Upon Valvair 2-WAY 3-WAY 4-WAY

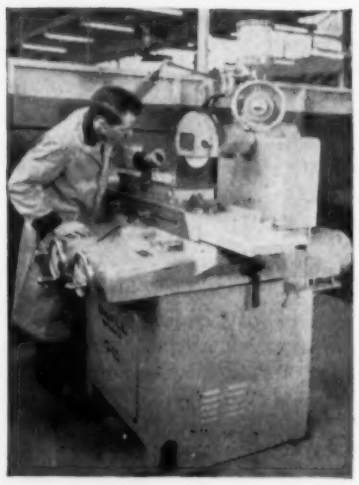
For more details circle NED-5910 on enclosed inquiry slip

UPS PRODUCTION 25% BETWEEN DIE GRINDS

DoALL "COOL-GRINDING"
(U.S. PATENT NO. 2470350)

GIVES IMPROVED FINISH ON HIGH CARBON HIGH CHROME NN STEEL

"COOL-GRINDING" WILL PREVENT BURNED OR SCORED FINISH, LENGTHENS THE LIFE OF YOUR TOOLS

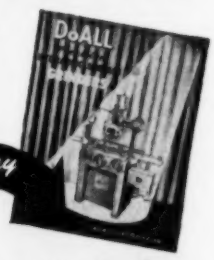


"Cool-Grinding" takes liquid in at the hub of the wheel, and through centrifugal force passes it through the pores of the wheel and out as a fine mist *at the point of contact between the wheel and the work.*

ONWARD Manufacturing Company, Ltd., Kitchener, Ont., knows the benefits of DoALL *"Cool-Grinding."* They say, *"Since using this Grinder with 'Cool-Grinding' we have obtained a 25% increase in number of pieces per die grind over former methods of grinding."*

WHY? Because DoALL "Cool-Grinding," with coolant flowing *through* the wheel, prevents excessive heat that scores, draws the temper or checks the metal finish. The finish is smoother, too. The die does more work before it needs grinding. You save time and money and material. Ask to have a Free DEMONSTRATION of DoALL "Cool-Grinding" at your own plant. Call your local DoALL Sales-Service Store or write:

THE DoALL COMPANY
254 N. Laurel Ave.
Des Plaines, Ill.



SEND FOR CATALOG Today

DoALL

GR-2-R

—see how "Cool-Grinding" works, why it is better, how it will benefit you —see the different models of DoALL Precision Grinders for toolroom or production work.

Machine Tools . . . Gaging Equipment . . . Tool Steel
Band Tools . . . Metal Working Supplies

For more details circle NED-5911 on enclosed inquiry slip

Scrap Today Means Steel Tomorrow

Heavy iron and steel scrap inventories have fallen to dangerously low levels in recent months. Scrap supplies are fluctuating between days and only a few weeks as compared with normal safe-working inventories of about 60 days. Idle and obsolete machinery and equipment must be written off and started moving to scrap dealers along with all production scrap that can be collected. Fast action by presidents and general managers of both large and small factories can save the steel industry from a prolonged and critical scrap shortage. Business, industry and agriculture are teaming up to form local Scrap Mobilization Committees. All can co-operate in this essential defense effort. Heavy scrap is needed to continue our Defense efforts.

A. N. Gregg
EDITOR

GROOVED-WHEEL CASTERS carry heavy load on angle iron rail

Designed for operating on inverted angle iron tracks, series VG grooved-wheel casters are also practical for floor use. Construction features drop-forged steel top plate and yoke, welded steel legs and heavy duty semisteel wheels. Casters with capacities ranging from 500 to 2500 lb are available with wheel diameters from 4 to 10 in. Use of these casters permits making many types of materials handling units for rail or floor operation. Made by **Albion Industries, Inc.,** Dept. NED, Plastic Rd., Albion, Mich.

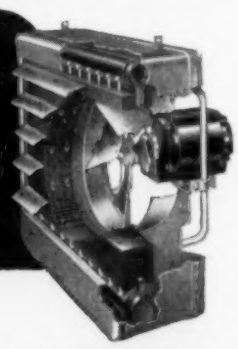
For more details circle NED-5912 on enclosed inquiry slip

SALT TABLET DISPENSER container is expendable type

Made of clear plastic so that contents are visible at all times, this Crystal-M plastic expendable salt tablet dispenser holds 1000 salt tablets which are enteric coated to regulate salt dissolution and assist in preventing nausea. Unit is sealed at factory. Simplified tablet release mechanism requires slight pressure from finger or hand to release tablet. Trigger cocks automatically for next user. Expendable dispenser is discarded when empty. Easily installed bracket permits quick removal and replacement. Made by **Standard Safety Equipment Co.,** Dept. N, 232 W. Ontario St., Chicago 10, Ill.

For more details circle NED-5913 on enclosed inquiry slip

Less Overhead When You HEAT Over Head with...



DUNHAM UNIT HEATERS

Why let ineffective heat distribution run up fuel bills—and overall operating expenses?

Why not look into these Dunham Horizontal Discharge Unit Heaters—see how they give you heat where you need it most . . . quietly.

Dunham's resiliently mounted motors; slow-speed fans; and sturdy one-piece fan shroud—all combine to direct air efficiently through individually adjustable louvers.

For complete information about long-lasting, expense-saving Dunham heaters, WRITE FOR BULLETIN 1301-14.

DUNHAM

C. A. Dunham Co.
400 W. Madison St., Chicago 6, Ill.
In Canada:
C. A. Dunham Co. Ltd., Toronto
In England:
C. A. Dunham Co. Ltd., London

HEATING SYSTEMS AND EQUIPMENT

For more details circle NED-5914 on enclosed inquiry slip

I Want to Saw
2" Hard or Soft Wood

I Want to Saw
Curves of All Types

I Want to Saw
Insertions

I Want to Saw
Plastics

Ideal for Cornices

SPEEDS WORK

Only LESTO (Formerly Scintilla) Portable HAND SAW Satisfies All!

Write for Literature

Designed Manufactured & Patented by Scintilla, Ltd., Switzerland, since 1944.

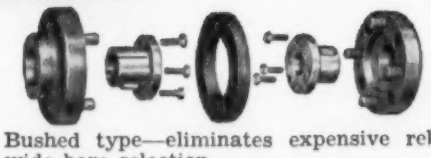
Sold & Serviced in Principal Cities Throughout U.S.A.

VICTOR J. KRIEG, Inc.
Sole U.S. Representative for Scintilla, Ltd. Switzerland
55 West 42nd Street, New York 18, N. Y.
LOngacre 4-6487
Some Sales Territories Available

For more details circle NED-5915 on enclosed inquiry slip

Browning

FLEXIBLE COUPLINGS WITH SPLIT TAPER COMPRESSION BUSHINGS



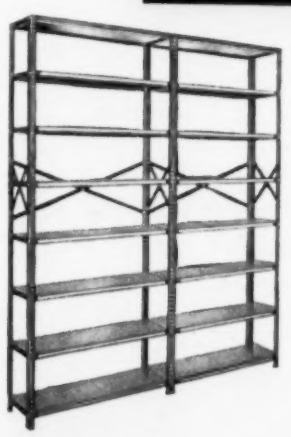
(1) Bushed type—eliminates expensive reboring—wide bore selection
(2) Completely machined from solid steel or malleable castings
(3) Compact-maximum strength
(4) Neoprene insert-added strength, resiliency, shock absorbing, oilproof, greaseproof, heat resistant
(5) Easy to mount, easy to remove, positive locking clamp fit, 1/6th to 40 H.P. range—available from stock.

Write for catalog V169 and the name of the Browning distributor near you

BROWNING MANUFACTURING COMPANY
1951 BROWNING DRIVE MAYSVILLE, KENTUCKY

For more details circle NED-5916 on enclosed inquiry slip

Manufacturers Neiman Since 1932



STEEL SHELVING & TOOL STORAGE UNITS

Conforms to Federal Specifications

Special attention to Defense Orders

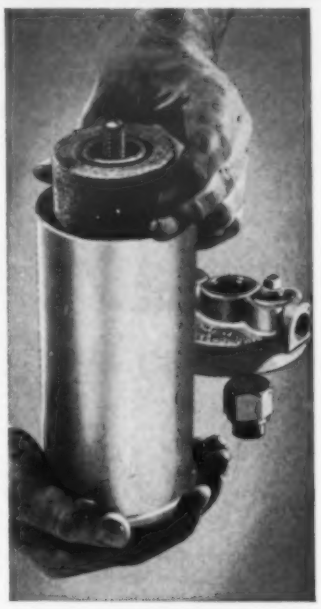
Prompt Deliveries on all D. O. Ratings

Write For Catalog 20

NEIMAN
STEEL EQUIPMENT CO., Inc.
106-110 N. THIRD ST., PHILADELPHIA 6, PA.

For more details circle NED-5917 on enclosed inquiry slip

THIS SHOULD HAPPEN ONLY HALF AS OFTEN!



Eliminate half the cartridge replacements—select Cuno MICRO-KLEAN micronic filters.

Exclusive "graded density in depth" doubles dirt capacity, prevents clogging. Exclusive resinous impregnation and polymerization prevent shrinking, swelling, channeling.

When replacement *is* required—it's *quick* and *clean*. Housing easily disassembled.

Guaranteed densities: 10, 25, 50 microns. Capacities: from a few to over 800 gpm. Handles wide range of fluids, flow rates, viscosities.

Write for Bulletin MK-035. Cuno Engineering Corporation, 707 South Vine Street, Meriden, Connecticut.

CUNO

Fluid Conditioning

Removes More Sizes of Solids from More Types of Fluids

▲ For more details circle NED-5918 on enclosed inquiry slip ▲

SURFACE FLATNESS GAGE

optical straightedge checks ways, machine tables and surface plates

Deviations of surfaces from flat as small as 0.00005-in. can be measured with this Griswold Huet optical straightedge. Consisting of lens and prism housing as well as feeler microscope with built-in illumination, instrument uses beam of light as straight-line reference. Made in 3, 5, 10 and 13-ft lengths, housing rests on two blocks, and feeler which includes optical system slides on work surfaces. Errors are observed through microscope and are indicated by relative position of two indices. Distance between these indices is converted into linear measurement by reference to micrometer thimble.

Surface contours can be recorded graphically by using accessory attachments. This enables tracing of deviations, enlarged 1000 times, on co-ordinate paper for permanent record. Instrument is particularly usable for checking and correcting surface deviations of surface plates, machine tool tables, slideways, cylinders, flat beds and other similar parts. Made by **F. T. Griswold Mfg. Co.**, 0305 W. Lancaster Ave., Wayne, Pa.

▲ For more details circle NED-5921 on enclosed inquiry slip ▲

PRODUCTION FLOOR SANDER

cutting pressure is adjustable and assures flatness of finished floor

Several improvements have been incorporated in this model 504 Contractor Special floor sanding machine. It is powered by heavy duty 115/230-v 60-cycle 2-hp motor which provides drum speeds of 1600 and 2000 rpm. Drum is 8 in. wide and has 7½-in. diameter. Standard equipment includes 100-ft cord assembly, carrying handle assembly, paper-cutting templet, abrasive paper in six grits, dust bag, grease and wrenches.

Interchangeable drum cover can be renewed on-the-job in 3 minutes. Powerful fan picks up 97 per cent of dust and deposits it in bag. Pieces of sandpaper, nails and other objects are trapped before they reach fan and can be removed through convenient clean-out door. Any one of five stages of cutting pressure can be selected by simple control. This equalizes wear of abrasive paper and minimizes danger of making dips and hollows in finished floor surface. Machine weighs 241 lb, but it responds instantly to hand and will turn in tight 3-ft circle. Machine can be disassembled into motor and chassis units to permit carrying by one man. Drum cuts within 1 in. of quarter-round and rubber bumper protects baseboard from scratches. Made by **Porter-Cable Machine Co.**, 1710 N. Salina St., Syracuse 8, N. Y.

▲ For more details circle NED-5922 on enclosed inquiry slip ▲

TRY IT FREE!

New *Super-Powered* IDEAL "Hand-Type" CLEANER

BLOWS . . . . concentrated blast of dry air at *300 miles per hour*. Blows grit, dust and lint from hard-to-get-at places. Evaporates moisture.

VACUUMS . . . dirt, metal, lint and wood particles, bench litter, etc.

SPRAYS . . . . paint, varnish, lacquer, insecticides and deodorants.

Regardless of your cleaning problem, the IDEAL Cleaner can do it better—faster! Has 1-1/3 h.p. motor. Weighs only 14½ lbs. Today's top value. Also 2/3 and 1/2 h.p. models.

Sold through America's Leading Distributors.

CLIP AND MAIL TODAY

IDEAL INDUSTRIES, Inc.
1032 Park Avenue, Sycamore, Illinois

Give us a FREE DEMONSTRATION of the IDEAL "Hand-Type" Cleaner in our plant.

NAME _____
COMPANY _____
ADDRESS _____
CITY _____ ZONE ____ STATE _____

▲ For more details circle NED-5924 on enclosed inquiry slip ▲

PRESSURE VESSELS • RACKS • HANDLING & DIPPING BASKETS • EXHAUST SYSTEMS • PIPE • SCREENS • DRUMS • UTENSILS • CLIPS • CLAMPS • GROMMETS • OPEN & CLOSED TANKS •

CLIPS AND CLAMPS
We have tools for all standard sizes and weights and over 500 specials.

arco *covers anything with rubber!*

• Our special facilities include one of the largest vulcanizers in the industry. We have capacity for covering all shapes, sizes in any volume. Also molded and extruded rubber production parts.

Let our engineers help you solve your difficult problems.

AUTOMOTIVE RUBBER COMPANY, INC.
8601 EPWORTH BOULEVARD • DETROIT 4, MICHIGAN

▲ For more details circle NED-5919 on enclosed inquiry slip ▲

TAC does what no other tool can do!

AT LAST! AN OPEN-END RATCHET WRENCH — the world's first true *universal* wrench. A patented design for connections on tubing, rods, piping, conduit, studs, etc. Sixty-four socket sizes from ⅜" to 4". Smallest effective ratcheting arc yet — 5° to 7½°. TAC will also do every job any ordinary ratchet wrench will do: one TAC set replaces literally dozens of single-purpose hand tools.

makers of advanced tools for industry

TAC

TAC is the registered trademark of

TUBING APPLIANCE CO.
7112 South Victoria • 10321 Anza Ave. • Los Angeles, Calif.

▲ For more details circle NED-5920 on enclosed inquiry slip ▲

For Lifting and Holding Heaviest Loads

DUFF•NORTON
Ratchet Lowering
JACKS

for INDUSTRIAL PLANTS • MILLS • MINES • RAILROADS • CONTRACTORS RIGGERS • TRUCKERS • ETC.

Constructed for long, trouble-free service—smooth action—Duff-Norton Ratchet Lowering Jacks raise loads weighing from 5 to 25 tons from 7½" to 18". Built for rugged use. Many sizes to choose from.

Write for Catalog 203 H.

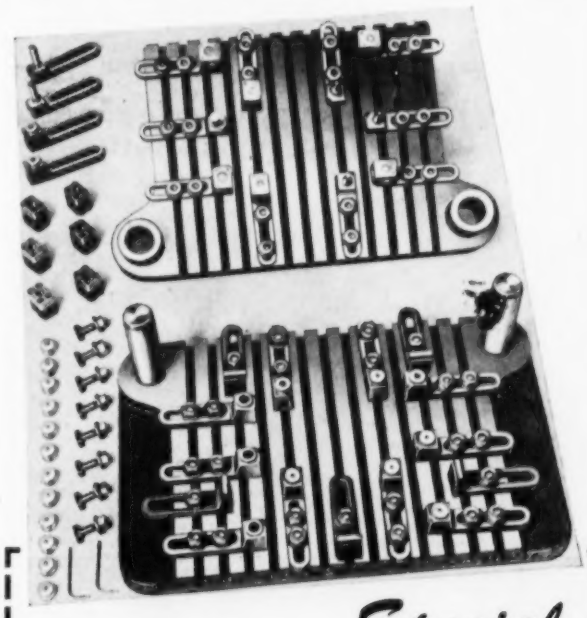
THE DUFF-NORTON MANUFACTURING CO.
Main Plant and General Offices: PITTSBURGH 30, PA.—Canadian Plant: TORONTO 6, ONT.
"The House that Jacks Built"

▲ For more details circle NED-5923 on enclosed inquiry slip ▲

Save TIME and MONEY with this New

WHISTLER U-375

Adjustable Perforating Die Set

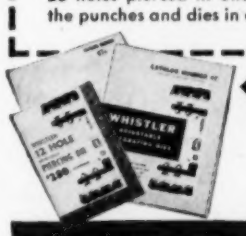


Special Introductory Offer

To prove the advantages of Whistler Adjustable Perforating Dies under your own production conditions we offer this U-375 set complete as illustrated... ready to set up and start work... at a special low price. Punches and dies are your own selection of sizes from 1/32" to ⅜". Complete set consists of 10" x 12" T slotted die set; 12 each punch, die and stripper assemblies plus locating pilots, gauges and set up plug. U-375 Unit shipped complete. . .

$280 Net F. O. B. Buffalo, N. Y.

Whistler Adjustable Perforating Dies are saving money in hundreds of metal working shops. Pierce materials up to and including 1/16" mild sheet steel. Minimum centers of ⅞". Up to 25 holes pierced in one operation with the U-375 set. Re-use the punches and dies in any number of different arrangements.



SENT FREE ON REQUEST

Special U-375 Booklet and General Catalogs. In brief informative style, with clear-cut illustrations, this literature gives complete details about Whistler Adjustable Dies. Write today.

S. B. WHISTLER & SONS, Inc.
750 Military Road Buffalo 17, New York

▲ For more details circle NED-5925 on enclosed inquiry slip ▲

Blows continuous shrill whistle when air line pressure drops below pre-selected value. Automatically stops blowing when pressure is restored. Completely mechanical; entirely self contained; requires no auxiliaries. Fig. 130, Industrial Model, illustrated, is only 4½" high over-all. Price $12.75

Distributorships Open.

AIRLARM P. O. BOX 13034 HOUSTON 19, TEX.

For more details circle NED-5926 on enclosed inquiry slip

THE *Universal* FLEXIBLE METAL HOSE

- *In All Available, Workable Metals*
- *In Sizes From ⅛" to 30" Diameters*

STANDARD

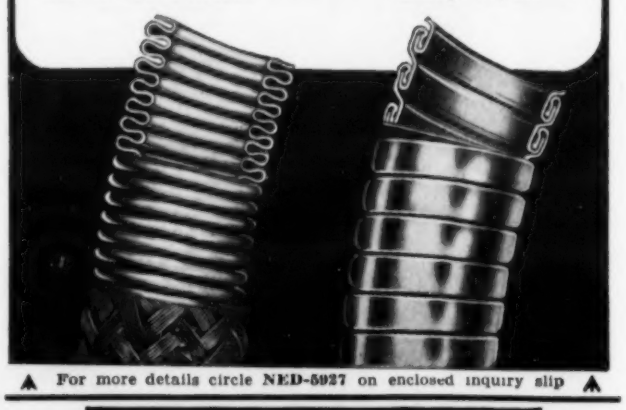
We offer you a wide selection of flexible metal hose for conveyance of gases, liquids, semi-solids, dust, etc. — for moisture-proof armored conduit and control casings — and many other applications.

SPECIALS

Our engineering department will offer detailed recommendations on any special problems without obligation to you.

Write for UNIVERSAL METAL HOSE Catalog U-101

UNIVERSAL METAL HOSE CO.
2155 S. Kedzie Avenue Chicago 23, Illinois



For more details circle NED-5927 on enclosed inquiry slip

PUT *Electric* HEAT WHERE YOU WANT IT

TO REDUCE COSTS, IMPROVE PRODUCTION

CHROMALOX *Electric* HEATING UNITS

Chromalox Electric Heaters give fast, uniform and dependable heat for heating gases, liquids, viscous fluids; platens, dies, molds, ovens, soft metals and countless other heating uses. They install easily and quickly, provide concentrated and controlled heat that is safe, dependable, clean and economical. Put time and money saving Chromalox Electric Heat to work in your plant now.

Write for "100 WAYS TO APPLY ELECTRIC HEAT"

It's filled with application ideas on versatile, low-cost Chromalox Heaters. Send for your copy now.

ID-17

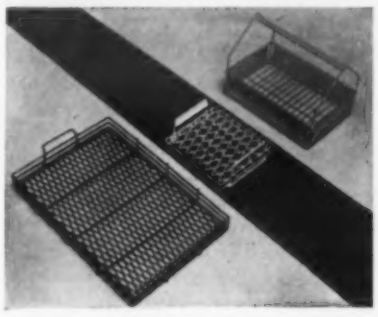
Industrial Div., EDWIN L. WIEGAND CO., 7509 Thomas Boulevard, Pittsburgh 8, Pa.

See other advertisement on page 53

CHROMALOX
ELECTRIC HEAT FOR MODERN INDUSTRY

For more details circle NED-5928 on enclosed inquiry slip

MATERIALS HANDLING BASKETS in wide range of sizes and types

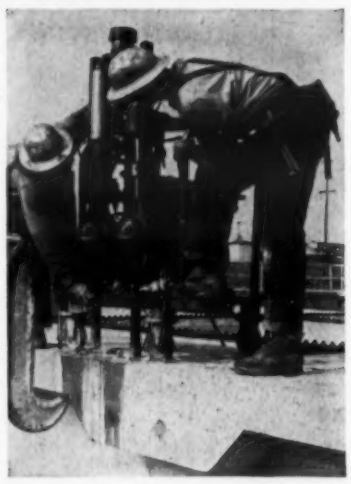


Fabricated of up to ⅝-in. wire, wire mesh, expanded metal, sheet metal or any combination of these materials, line of materials handling baskets includes sizes, shapes and types to meet any need. They can be coated with various types of plastics and rubber to protect materials or parts to be handled or to resist action of pickling compounds, solvents or degreasing solutions. In addition, baskets can be nickel, cadmium or zinc plated; Parkerized; Bonderized or copper finished. They can be fitted with casters for portability where indicated.

Coated wire basket shown at top of illustration is designed for handling optical lenses. Sectioned basket in center is engineered for handling shell casings through various processing operations. Large flat tray unit of expanded metal is suitable for general operations handling products ranging from bread loaves to small components. Baskets will be engineered for any handling operation. Made by **Coleman-Pettersen Corp.**, 2138 St. Clair Ave., Cleveland 14, O.

For more details circle NED-5929 on enclosed inquiry slip

POWER CONCRETE DRILL makes over 100 2-in. holes per day



A two-man operating team, using a specially built power gang drill, is able to average approximately 110 to 114 6-in. deep, 2-in. diameter holes per day. Gas engine driven rig built by National Steel & Shipbuilding Corp., San Diego, Calif. uses Konkrete Kore drill heads for drilling of over 5000 holes for hand rails. Fixed double transmission on 6 hp Wisconsin engine-powered rig imparts rotary motion to turn drill heads. Two hydraulic cylinders supply down pressure on bits and two large C-clamps hold rig stationary during drilling. Drill heads and drills made by **Tilden Tool Mfg. Co.**, Dept. NED, 209 Los Molinos, San Clemente, Calif.

For more details circle NED-5930 on enclosed inquiry slip

DO YOU KNOW? Strict observance of sensible safety rules and sound caution "pay off" for the industrial power truck driver as well as for his employer. This is stressed in 24-page pocket-size booklet "Safety Saves" which cites simple "Do's" and "Don'ts" in line with a practical code of truck operation. Lively cartoons "drive home" important points. Available from Clark Equipment Co., Industrial Truck Div., 1952 Arze St., Battle Creek, Mich.

For more details circle NED-5931 on enclosed inquiry slip

CASE No. 419
Steel Products Plant
*Name on Request

$21,000 SAVED YEARLY
installation paid for itself in six months . . . congestion eliminated

(a) Savings in Effort 15% (est.) (c) Savings in Space 20% (est.)
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Saving in money . . . saving in time . . . saving in effort . . . saving in space . . . all accomplished by the installation of Logan Conveyors. You may find similar savings possible in your business. Write today for book, "Key to Lower Costs."

Logan Conveyors
LOGAN CO., 215 CABEL ST. • LOUISVILLE 6, KY.

For more details circle NED-5932 on enclosed inquiry slip

Are You Seeking a Supplier of

ALUMINUM CASTINGS?

FOR those vitally important Aluminum Castings — whether produced by the Permanent Mold, Semi-Permanent Mold or Sand Cast process — it pays to go to the source with **proven facilities.** Complete laboratory facilities for quality control, modern equipment, and over 30 years of experience in working with aluminum and its alloys are at your service. Get the facts today.

SEND for Bulletin No. 20-A telling how and why you can depend upon Aluminum Industries, Inc., for the Aluminum Castings you need in your production. Recommendations and estimates given without obligation.

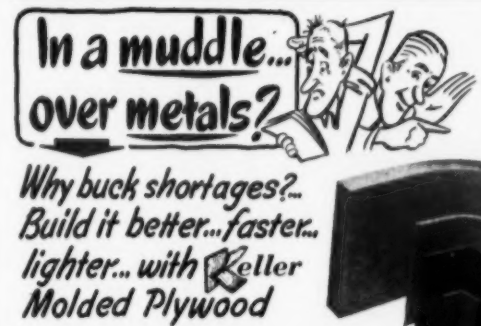
PERMITE

ALUMINUM INDUSTRIES, Inc.
CINCINNATI 25, OHIO

ALUMINUM PERMANENT MOLD, SAND and DIE CASTINGS . . . HARDENED, GROUND and FORGED STEEL PARTS

For more details circle NED-5933 on enclosed inquiry slip

In a muddle... over metals?



Why buck shortages?... Build it better... faster... lighter... with Keller Molded Plywood

The metals shortage will get worse before it will get better.
So why beat your head against a wall? — Discover Keller Molded Plywood and build a better, lighter product in a fraction of the time.
Now before you say Keller Molded Plywood can't work for your product write and find out why it can.

Not merely a metals substitute — but a *new production method*

Keller Molded Plywood is so versatile it offers a refreshing new way of making things . . . *better.* Practically any conceivable shape in light or heavy gauge and in any size or veneer available from stock. Also low pressure plastic-impregnated cloth and laminates of — wood, glass, rubber, etc. *Write for catalog today.*

Keller PRODUCTS, INC.
50 Union St. • Manchester, N. H.

For more details circle NED-5934 on enclosed inquiry slip

JABSCO SELF PRIMING PUMPS

Patented and Patents Pending

the pump with the DUPONT NEOPRENE impeller (oil resistant)

BRONZE, STAINLESS STEEL & IRON CONSTRUCTION — CAPACITY TO 50 GALLONS PER MINUTE

1 MORE CAPACITY—for its weight, size and price.
2 SELF-PRIMING—starts instantly with high suction lift.
3 ONE MOVING PART—tough, long-lived.
4 GEARLESS—impeller outlasts metal gears.
5 TROUBLE FREE—simple construction.
6 ECONOMICAL—low cost—low maintenance.

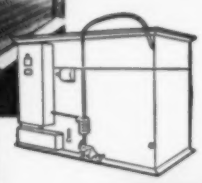
LIQUID TRANSFER AND CIRCULATING FOR ALL INDUSTRIES

JABSCO PUMP COMPANY
2031 N. Lincoln Street • Burbank, California

For more details circle NED-5935 on enclosed inquiry slip

REMOVE STUBBORN GREASE AND DIRT FROM METAL PARTS — EASIER, FASTER, MORE ECONOMICALLY WITH . . .

Photo shows 20 mm. guns after degreasing of Cosmoline, prior to modification operations.



ENGINEERED SERVICE PHILLIPS

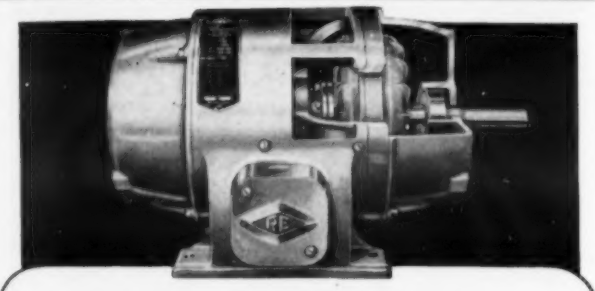
VAPOR DEGREASERS

THE most heavily greased up parts will come clean easier and faster in a Phillips degreaser. High vapor temperature (250.2° F.) not only causes more dissolved grease to run off the metal, but makes for faster degreasing too. Wherever you have parts to clean, large or small, before plating, painting, rustproofing, service and repairwork, etc., you can do it better, faster and more economically with a Phillips degreaser. There's a standard model to meet your needs. Check with Phillips today.

SEND FOR YOUR FREE COPY OF NEW ILLUSTRATED DEGREASER BULLETIN!

Phillips 3475 Touhy Ave. • Chicago 45, Illinois
MANUFACTURING COMPANY
Vapor Degreasers • Solvents • Parts Washers

For more details circle NED-5936 on enclosed inquiry slip



NEW FLUID-SHAFT MOTOR GIVES SMOOTH LOAD ACCELERATION . . . ELIMINATES NEED FOR CLUTCHES!

Reuland Fluid-Shaft motor with double reduction gear reducer.

Write for new Engineering Folder No. 2000.

REULAND FLUID-SHAFT ELECTRIC MOTORS are the only units with an integral fluid coupling. Their cost is much less than a conventional motor with drive attachment, and their ability to "take it" has already been proved on heavy jobs, including mixers, centrifugals and cranes.

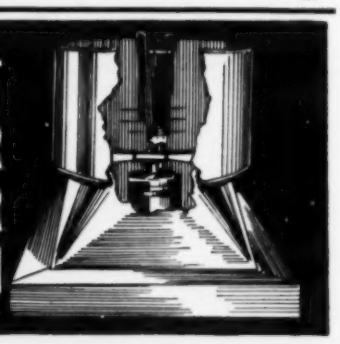
Fluid-Shaft motors accelerate heavy loads smoothly without the aid of mechanical clutches. Overloads are eliminated. Will start heavier loads than regular motors of comparable horsepower!

• Protection against "jamming" • Reduces maintenance
• No need to overmotor to start heavy loads • Wide H. P. range
• Uses less starting current • Shorter mounting dimensions

RE REULAND ELECTRIC CO.
ALHAMBRA, CALIFORNIA • DISTRIBUTORS IN PRINCIPAL CITIES

For more details circle NED-5937 on enclosed inquiry slip

DON'T LET FOUL AIR FOUL UP YOUR PRODUCTION



Automatic Roof Ventilator
Propeller Pitch Adjustable
Balanced Damper Flaps

Eliminating foul air is our JOB. Industrial Air manufactures fans and ventilating equipment to fit your specifications and JOB needs. Available in all sizes, from 14" through 72" in diameter, belt or direct driven operation.

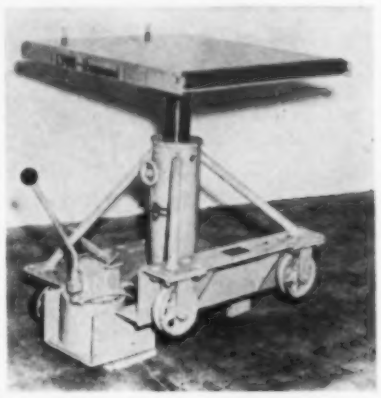
Duct Fans
Direct or Belt Driven
Utility Man Cooler
Portable Man Cooler
Roof Ventilators
Duct Type Fan
Duo Duct

AIR Represented in All Principal Cities
Write for Catalog of Our Complete Line

THE HARVEY P. BERTRAM CO.
1008 W. Ninth St. Cincinnati, Ohio

For more details circle NED-5938 on enclosed inquiry slip

ELEVATING TABLE
facilitates hot mold handling



Serving a battery of presses, this special hydraulic elevating table is used for positioning and carrying hot curing molds in a rubber processing plant. Slight modifications were made in standard model to meet customer's specifications for a 16-in. range of elevation. So that molds can be placed in presses at different levels, top lowers to 28 in. and raises to 44 in. Two offset grooved wheels run on angle iron tracks in front of presses. Capacity is 2000 lb. Molds roll on top over single roller mounted on front edge of top. Top will turn 360 degrees or can be locked in one fixed position. Elevation is actuated by two-speed hand pump. Made by **LYON-Raymond Corp.**, 41-82 Madison St., Greene, N. Y.

For more details circle NED-5939 on enclosed inquiry slip

RUBBER FRAME GOGGLE
for gas, fume and smoke hazards

Constructed without any ventilation slots in rubber frame to prevent infiltration of air, AO 701 goggle is designed to provide gas-tight seal for use where gas, fumes and smoke hazards are prevalent. Headband enters slots in outer goggle frame and not through slit in lens. Screw-head bolts on front of goggle are stainless steel. It may be obtained in combination with company's R2000 or R5000 respirators. Made by **American Optical Co.**, 1492 Mechanic St., Southbridge, Mass.

For more details circle NED-5940 on enclosed inquiry slip

SLEEVE BOLT FASTENER
made in 1/4 to 1-in. sizes

Created to reduce labor costs, this self-locking expansion sleeve type fastener eliminates second man required for tightening operation. Bolt is inserted in hole, and power tool drives bolt through sleeve to expand six prongs at bottom of sleeve. This forms tight grip which cannot work loose under vibration. Bolt head automatically countersinks itself below wood surface. Fastener is made in sizes from 1/4 to 2 in. diameter, in lengths from 1 in. up and with hex, square, round, flat or slotted heads. Made by **Square Tool & Die Co.**, Chicago Drillet Div., 1550 N. Fremont St., Chicago 22, Ill.

For more details circle NED-5941 on enclosed inquiry slip

DOWNS SAFETY GRABS . . . GRIP ANYTHING!

FOR CRANES AND HOISTS . . .

Material lifting equipment will do more work—faster, easier—when you have the proper "grabs" for every type of load. No matter what your hoists are handling—pipe, rails, drums, plate or structural steel, stone, timber, boxes or odd-shaped objects of any description—there's a DOWNS *Safety* Grab that will enable you to do it faster, easier *and* safer. Learn new short cuts to greater efficiency for YOUR plant with DOWNS' *complete line* of *Safety* hoist grabs!

Write for Free Illustrated Catalog 200 Today!

DOWNS CRANE & HOIST CO.
MECHANICAL ENGINEERS
540 W. VERNON AVENUE • LOS ANGELES 37, CALIF.

For more details circle NED-5942 on enclosed inquiry slip

MARKEM®

marks them all

FROM ARTILLERY SHELLS TO MEDICAL AMPULES

MASTERS OF MARKING — Since 1911

Markem methods, machines, type and inks have been marking the products of industry for forty years. Markem machines can mark up to many thousands of pieces per hour. They make clear, durable imprints on flat, curved or irregular surfaces of paint, paper, wood, glass, metal, leather, plastic, rubber, fabric, composition and pressure sensitive tapes. No special skill is needed for their operation. Legend and color of imprint may be quickly and easily changed.

MAKE YOUR MARK WITH MARKEM

When your products need marking for Identification, Control or Market — ask Markem. Submit your problem, together with a sample of the item to be marked. Markem Machine Company, Keene 3, New Hampshire.

MARKEM BETTER MARKING SINCE 1911

For more details circle NED-5943 on enclosed inquiry slip

Simple — Accurate —
WEIR METERS
for Waste Measurement

● Float-and-cable Weir Meters developed by Foxboro offer simple, accurate measurement of liquid flow. Widely used in sewage, chemical processes, and industrial waste disposal.

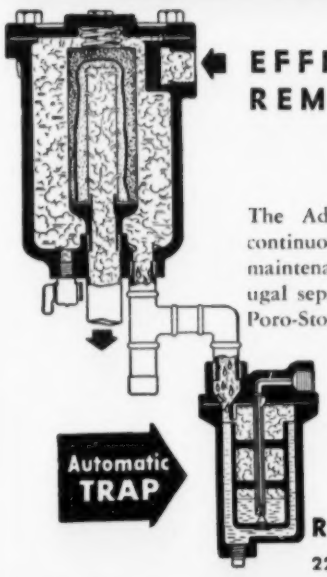
The Foxboro Weir Meter is extremely simple. Operates through motion of float to measure head through V-notch, rectangular or Cippoletti weirs—or Parshall flumes. Motion is transmitted by cable to accurate recording or integrating mechanisms. Direct-reading, uniform flow scale—copper or plastic-covered floats.

Write for detailed information. **The Foxboro Company, 1348 Neponset Ave., Foxboro, Mass., U. S. A.** Also Montreal, Canada. Branches in principal cities.

FOXBORO Reg. U. S. Pat. Off. WEIR METERS

For more details circle NED-5944 on enclosed inquiry slip

Poro-Stone Filtration FOR COMPRESSED AIR



EFFICIENTLY REMOVES:
OIL, WATER
PIPE SCALE

The Adams *Poro-Stone* Filter gives continuous service without attention or maintenance expense. Efficient centrifugal separation *plus* diffusion through Poro-Stone, removes contamination completely without pressure loss. Automatic Trap eliminates attention and assures continuous and efficient filter operation. Write for complete data—Bulletin 176.

R. P. ADAMS CO., INC.
227 E. Park Dr., Buffalo 17, N. Y.

ADAMS *Poro-Stone* AIR FILTER

For more details circle NED-5945 on enclosed inquiry slip

WHAT ABOUT STRESS RAISERS?

This book gives the answers..

How to avoid the localized stresses which start failure is a basic problem of design. This 72 page booklet analyzes many good and bad features of design. It also deals with problems of steel selection and treatment from the viewpoint of the design engineer—instead of the metallurgist.

Write for "3 Keys to Satisfaction"—it is free.

This booklet sent to you FREE

Climax Molybdenum Company
500 Fifth Avenue · New York City

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For more details circle NED-5946 on enclosed inquiry slip

...cut equipment down-time—DOWN with pin-point dust-removal via durable *SPIRATUBE*

Abrasive dust constantly wages war against the profitable, uninterrupted operation of grinders, buffers, polishers, and near-by machine-tools. It bites into bearing surfaces—and PROFITS. But it can be licked.

Efficient, light-weight, Spiratube chases, and captures dust . . . around corners, into pockets, hard-to-get-at places. Cushioned construction rides with the punch of high-velocity abrasive particles . . . lasts and lasts.

This BETTER tubing is portable, easy to install. Initial cost is small, maintenance cost practically nil . . . adds up to an all-time low in cost-per-year of efficient dust-removal, and it fits into present systems. Standard sizes immediately available from well-stocked distributors—Coast-to-Coast.

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FLEXIBLE TUBING CORPORATION
MADE IN U.S.A.
SPIRATUBE
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For more details circle NED-5947 on enclosed inquiry slip

Amazing New 3/4 Ton HOIST and PULLER!

BLACKBURN *Jiffy Lift*

30 DAY FREE TRIAL

Hundreds of Uses

Hoist weighs only 12 lbs., yet has 3/4 ton capacity. Single control for up and down. Quick action, ratchet type. Factory-tested. $45.00 F.O.B. St. Louis. Try it a month FREE!

MAIL COUPON TODAY

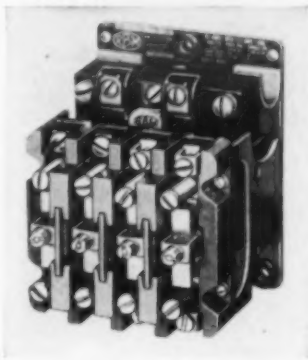
JASPER BLACKBURN CORPORATION
35 Madison St., St. Louis 6, Mo.

☐ Send us full information about "Jiffy Lift".
☐ Send us one "Jiffy Lift" for 30 Day FREE TRIAL.

Your Name and Title _____
Firm _____
Address _____
City and State _____ NED

For more details circle NED-5948 on enclosed inquiry slip

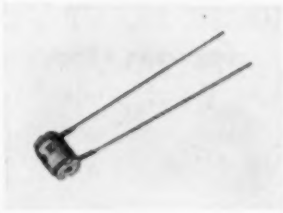
INDUSTRIAL CONTACTOR rated at 25 amp, 600 v ac



Made with normally-open contacts only, this 25-amp 600-v ac industrial contactor can be furnished with power poles, plus convertible interlocks. It is available in two to five-pole construction, reversing and nonreversing, open and enclosed. Features include E-type magnet, floating armature, Ilsco solderless terminals for No. 6 wire and steel base with neoprene mounting grommets. Screw terminals can be furnished on special order. Small overall size permits side-by-side mounting in limited area. Made by **Essex Wire Corp., R-B-M Div., Hanna St., Logansport, Ind.**

For more details circle NED-5949 on enclosed inquiry slip

MINIATURE RESISTORS for small electronic components



Measuring $\frac{13}{32}$-in. long and $\frac{9}{32}$-in. in diameter, type WW-10 resistors are available with resistances ranging from 10 ohms to 0.160-megohms. They are rated 0.15-w at 85° C ambient temperature, and have maximum temperature coefficient of 0.0025 per cent per degree Centigrade from 20° to 100° C. Maximum voltage is 150 v. Made by **International Resistance Co.,** 409 N. Broad St., Philadelphia 8, Pa.

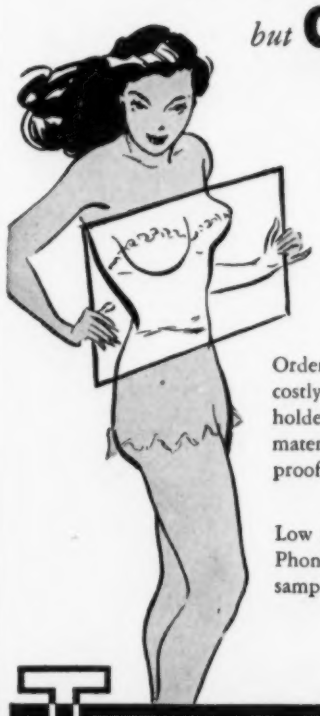
For more details circle NED-5950 on enclosed inquiry slip

DRIVER-LED INDUSTRIAL TRUCK features retractable lift mechanism

Development of lift mechanism that retracts after engaging a pallet enables use of driver-led model SRT Transtacker electric industrial truck in 6-ft wide aisles. When operator moves stacker into desired position for picking up load, he raises forks to proper height, presses button which moves forks toward load and into pallet; this completed, he raises load few inches, pushes another button and entire upright section is retracted. Tiering works in just opposite manner from detiering. Stacker has 79-in. overall height, 94-in. telescopic lift and is rated 1500-lb with 32-in. loads. Made by **Automatic Transportation Co.,** 149 W. 87 St., Chicago 20, Ill.

For more details circle NED-5951 on enclosed inquiry slip

...you can **SEE** *it...*
but **CAN'T TOUCH** *it!*



Keep your paper-work Clean and Neat with

TRANSPARENT PLASTIC HOLDERS

For Blue Prints—Shop Orders, etc. Smudged, torn papers are costly to your business. These plastic holders protect papers, save scarce materials, time and money. Flame-proof, moisture-proof, grease-proof.

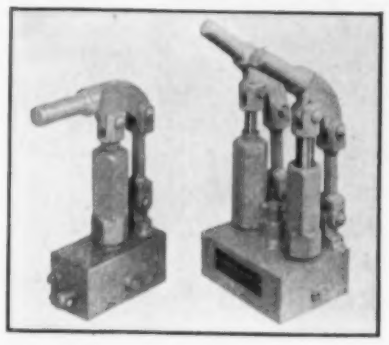
Various types, sizes, styles. Low as 19¢ each (in quantity). Phone or write today for free sample and price list.

TRANSPARENT SHADE CO.
505 N. Figueroa Street • Los Angeles 12, Calif.

For more details circle NED-5952 on enclosed inquiry slip

HAND HYDRAULIC PUMP

Single and Double Designs To 20,000 Pounds



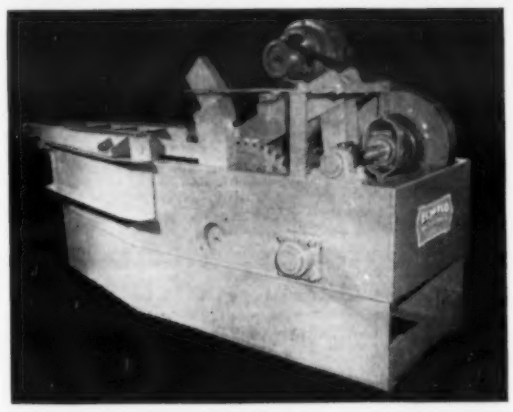
Interchangeable Pistons 3/8-1/2-3/4 inch
★
Integral Release Valve
★
Unit Reservoir 360 cu. in.

Pressure range is 3,000 to 20,000 pounds. Pipe connections measure 1/4 inch. Handle length is 18 inches. Weight is 8 to 18 pounds. Can be bolted or welded into position.

WILLIAM S. PINE
1635 E. 22nd St., Los Angeles 11, Calif.

For more details circle NED-5953 on enclosed inquiry slip

SCRAP METAL BALER



● No pit required . . . No installation cost ● Costs only a fraction of hydraulic press cost ● Makes an electric furnace size bale—14" cube ● Baler delivers up to 140 tons pressure

Ease of installation is an important feature for large and small manufacturers and fabricators alike. Automatic pressure release prevents damage resulting from over-charging. Toggle mechanism is fabricated from heavy steel bar sections. All pivot points are phosphor-bronze bushed. All shafting is 4140 alloy steel. Finest punch press type clutch, flywheel and V-belt sheave assembly.

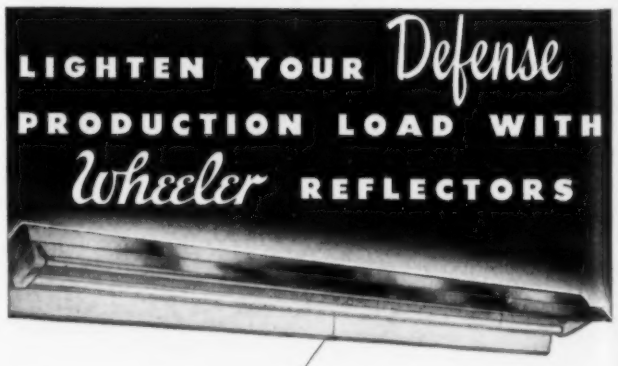
General Specifications: Capacity 12.8 cu. ft. . . . bale size—14" cube . . . bale weight—150-220 pounds . . . platen pressure—140 tons . . . stroke cycle—5 seconds . . . Power required—15 HP motor, 1200 RPM . . . floor space—12' x 6' . . . height—4 feet . . . weight (approx.)—12,000 lbs.

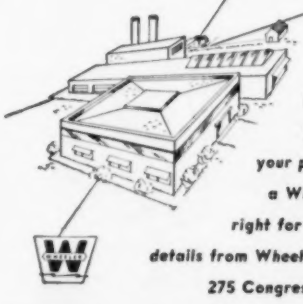
Write For Full Particulars Today

EAST CHICAGO MACHINE TOOL CORP.
4801 Railroad Ave. • East Chicago, Ind.

For more details circle NED-5954 on enclosed inquiry slip

LIGHTEN YOUR *Defense* PRODUCTION LOAD WITH *Wheeler* REFLECTORS





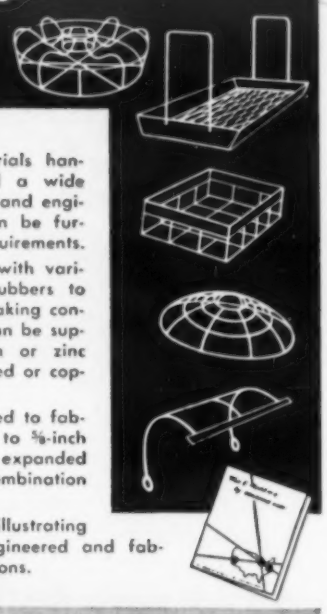
Converting to defense production? You'll need the greater lighting efficiency of Wheeler Fluorescent Fixtures. Whatever you manufacture . . . whatever your plant conditions . . . there's a Wheeler Fluorescent Fixture that's right for the job. Get complete details from Wheeler Reflector Co. 275 Congress St., Boston 10, Mass.

***Wheeler* REFLECTORS** Distributed Exclusively Through Electrical Wholesalers

MADE BY SPECIALISTS IN SKILLED LIGHTING EQUIPMENT SINCE 1881

For more details circle NED-5955 on enclosed inquiry slip

wire fabrications



● Dishwasher racks, materials handling baskets, guards, and a wide range of specially designed and engineered wire fabrications can be furnished to meet individual requirements.

Fabrications can be coated with various types of plastics or rubbers to protect materials or parts making contact, and uncoated shapes can be supplied with nickel, cadmium or zinc plated, parkerized, bonderized or copper finish.

Coleman-Pettersen is prepared to fabricate shapes from wire up to ⅝-inch in diameter, wire mesh, expanded metal, sheet metal or any combination of these materials.

Write today for bulletin illustrating shapes that have been engineered and fabricated for specific applications.

281-COP

Wire and Metal Manufacturing by

COLEMAN-PETTERSEN CORP.

2138 ST. CLAIR AVE., CLEVELAND 14, OHIO • 2054 E. 38th ST., LOS ANGELES 58, CALIF.

For more details circle **NED-5956** on enclosed inquiry slip

the new Smitty saves time and temper!

No more lost time and temper looking for the "right" sized wrench! The new Smitty combines the most popular, standard size, socket head wrenches into a sturdy knife-like handle small enough to fit in your pocket.

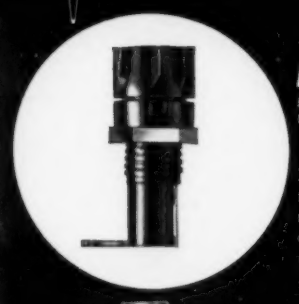
Its unique design permits greater leverage at any angle, and gives easy access to those hard-to-get-at places. Individual wrenches, made of high quality, tempered steel, are replaceable . . . enabling you to keep the Smitty intact without buying a complete new tool. Get yours today!

Two sizes:
P-5—3/32", ⅛", 5/32", 3/16", 7/32" . . . fit set screws #10 to 7/16" incl. and cap screws #5 to 5/16" incl.
P-6—.050", 1/16", 5/64", 3/32", ⅛", 5/32" . . . fit set screws #3 to 5/16" incl. and cap screws #1 to 12 incl.

H. D. HUNTER COMPANY
3499 E. Fourteenth Street • Los Angeles 23, California
Dealers: Write for name of nearest jobber.

For more details circle **NED-5957** on enclosed inquiry slip

LITTELFUSE FUSE EXTRACTOR POST



MINIATURE
New overall size 1 11/16 inch. Distance behind panel 1 inch.

Littelfuse, maker of fine fuses, now pioneers another design development with the new, miniature Fuse Extractor Post.

Write Littelfuse today --4757 N. Ravenswood, Chicago 40 — for your free sample of the newest and smallest FUSE EXTRACTOR POST.

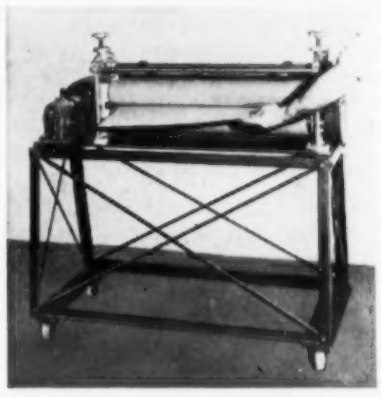
For more details circle **NED-5958** on enclosed inquiry slip

SMALL GEAR MOTOR for low speed applications

Featuring totally enclosed construction, built-in gear train, shaded pole motor and low voltage control circuit, Crise type AD low speed torque drive is available with standard output shaft speeds of 2, 7½ and 27 rpm. Torque ranges up to 10 lb-in. on standard ½-in. shaft extension. Internal stop pins can be used to limit motion from 90 to 270 degrees, or motor can have unlimited rotation in either direction. Low voltage control circuit starts, stops and reverses motor. It will not burn-out under continuous stall. Made by **Acro Mfg. Co.**, Dept. B, Columbus 16, O.

For more details circle **NED-5959** on enclosed inquiry slip

ROTARY GLUEING PRESS unit has adjustable pressure



Materials up to ½-in. thick and 30 in. wide can be glued at high speed with rotary press built for hand feeding of flat sheets or production line use for combining webs of glued materials. Pressure is adjustable to accommodate materials of varying thickness. Safety throw-off separates rubber-covered rollers. Mounted on rigid steel frame, machine is moved on ball bearing casters. Floor space required is 16 x 45 in. Special machines accommodating 24, 36, 42 and 48-in. and greater widths and thicknesses up to 1¼ in. are available. Made by **Potdevin Machine Co.**, 1285-A 38th St., Brooklyn 18, N. Y.

For more details circle **NED-5960** on enclosed inquiry slip

MASONRY CUTTING BLADE withstands dropping and twisting

Manufactured in layers of glass fiber cloth impregnated with resins and silicon carbide, B-R abrasive blade for masonry cutting is break resistant. Dropping, twisting in cut or bending will not damage blade which is made under hydraulic pressure and processed in kilns. Most effective performance is in cutting softer materials such as limestone, sandstone, light aggregate concrete products and dry press refractories and Transite. When used on small hand-power tools where it is impossible to maintain true cutting level, blade withstands bending and twisting in cut without breakage. Made by **Clipper Mfg. Co.**, Warwick at 28th St., Kansas City 8, Mo.

For more details circle **NED-5961** on enclosed inquiry slip

Experience Proves...

RHOADS *Tannate*® LEATHER BELTING

offers more operating advantages and economies than any other means of power transmission on a great many applications. If you are planning new equipment it will pay you to investigate Tannate Flat Leather Belt Drives . . . available from ¼ HP to 2500 HP. We will gladly send you more details about Tannate, with engineering advice, if desired.

PRODUCERS OF FINE LEATHER FOR 249 YEARS

J. E. RHOADS & SONS
35 NORTH SIXTH ST., PHILA. 6, PA.

For more details circle **NED-5962** on enclosed inquiry slip

TAKE TO THE AIR-

Overcome Those Production Problems Blocking YOUR Line

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POWER and FREE CONVEYORS

Proven through constant use in hundreds of manufacturing plants; Webb Materials Handling Conveyor Systems reduce costs and increase efficiency and productivity.

Power and Free Conveyors can be tailor-made to your requirements . . . to any plant large or small. They offer complete flexibility in meeting production problems. Some of their advantages include:

Loads are pushed, switched manually or automatically, can be lowered vertically, dispatched automatically by presetting carriers, and can be stopped momentarily anywhere along route.

Remember—You can depend upon Webb Engineering and cost-cutting Conveyor Equipment to solve your materials handling problems.

CONVEYOR ENGINEERS AND MANUFACTURERS
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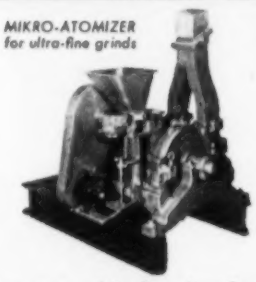
SAVE AND SIMPLIFY
By this Process of ELIMINATION and REDUCTION

MIKRO-ATOMIZER for ultra-fine grinds



The MIKRO-ATOMIZER
ELIMINATES: Air Separator • Bucket Elevator • Screw Conveyor
REDUCES: Headroom • Floor Space • Extra Handling or Equipment

If your need is for ultra-fine grinds requiring air classification rather than screening, the MIKRO-ATOMIZER is your complete answer. It is an entire system producing perfectly blended grinds in the lower micron range in a single pass at exceptionally low temperature rises.

With its built-in air separator, it is a 3-function machine, grinding, air-classifying and conveying in one operation. Slight adjustments permit varying degrees of fineness. If necessary, you can actually produce two degrees of fineness in one operation.

If you have ultra-fine grinding problems don't fail to investigate this 3-function MIKRO.

SEND FOR—special MIKRO-ATOMIZER bulletin

PULVERIZING MACHINERY COMPANY
28 Chatham Road Summit, New Jersey

1465

PRESERVE OUR HERITAGE: FAITH, FREEDOM AND INCENTIVE

MIKRO-PULVERIZER (FINE) -ATOMIZER (ULTRA FINE) REG. U.S. PAT. OFF.
Also Makers of the MIKRO-COLLECTOR

For more details circle **NED-5964** on enclosed inquiry slip

TURNER MULTI-SPEED POWER UNIT...

WITH SELECTIVE SLIDING GEAR TRANSMISSIONS IN 3, 4, 6 and 9 SPEEDS . . . . . .

The TURNER UNI-DRIVE CO. is the leader in the motorizing of cone drive type machine tools. The two new multi-drive power units, 25 & 50 HP are a case in point. They are sturdy, dependable and answer the problems of power driver involving speed reduction with multiple speeds. A flick of the wrist is all that's necessary to shift to any pre-determined speed. These machines can be assembled with different gear ratios to meet specific requirements. 4-speed models 30 to 50 HP.

TURNER UNI-DRIVE CO.
3420 Terrace St., Kansas City 8, Mo.

For more details circle **NED-5965** on enclosed inquiry slip

H. S. COVER, South Bend, Ind.

For more details circle NED-5966 on enclosed inquiry slip

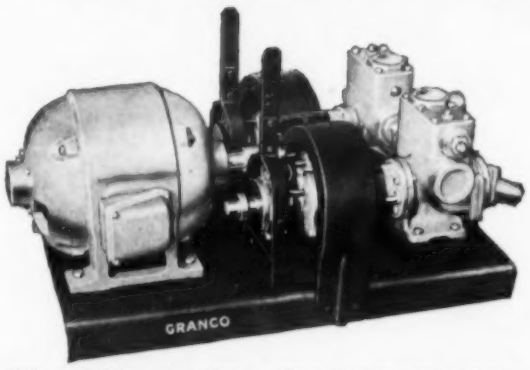
GAS-OIL BURNER
thermostat makes fuel changes

Gas service interruptions experienced by commercial and industrial consumers during periods of extreme weather can be offset through use of TWINfuel combination gas-oil burner. It switches from gas to oil and back automatically as determined by outside thermostat set at temperature point at which utility expects difficulties. Fuel can also be changed automatically with drop or rise in gas line pressure. Oil burner can be used for initial start of each firing period, with switch to gas occurring when proper stack temperature is reached. Burners are made in seven sizes from 80,000 to 3,000,000 Btu. They fit into front of any standard combustion chamber. Additional efficiency of operation is realized by automatically controlled damper which is open only when gas is on. Made by **Norman Products Co.**, Dept. Hp, 1158 Chesapeake Ave., Columbus 12, O.

For more details circle NED-5969 on enclosed inquiry slip

DUAL PUMP UNIT
handles any pipeline fluids

Light or heavy oils, gasoline, asphalts and any other fluids that will flow through a pipeline can be handled by this Granco twin pump. Capacities range from 90 to 200 gpm



in 2, 2½ and 3-in. pipe sizes. Compact in size, pump units are offered with bronze bearings having oversize oil reservoir or with self-aligning ball bearings. Each pump is controlled by manually operated clutch. Because pumps are of rotary positive displacement type, they have high suction and require no priming. Made by **Granberg Corp.**, 1301 67th St., Oakland 8, Calif.

For more details circle NED-5970 on enclosed inquiry slip

DO YOU KNOW? Light wall schedule 5 stainless steel pipe is satisfactory for majority of fluid carrying applications encountered in industry as it has ample safety factor to handle 150-psi pressure in larger diameters and considerably greater pressures in sizes below 2-in. OD. Complete information on schedule 5, 10 and 40 stainless steel pipe is available from Carpenter Steel Co., Alloy Tube Div., 118 Springfield Rd., Union, N. J.

For more details circle NED-5971 on enclosed inquiry slip

SEALMASTER units are designed and manufactured to give maximum service with minimum maintenance time and expense. Permanently sealed and self-aligning, SEALMASTER units give you 1—dependable service 2—operating economy and 3—less maintenance.

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For more details circle NED-5973 on enclosed inquiry slip

ACCURATE...
to ± 1 pt. ROCKWELL!
to ± 5 pts. BRINELL!

NOW! At-the-job, direct readings of all metal types, sizes and shapes. Quick and simple . . . just press handgrips, read dial. Unskilled labor can test assembly line work. No conversion scales, no calculations! Ideal for parts, finished products regardless of how large or small. Rockwell "A", "B", "C" scales. Low and medium Brinell scales. Both standard and superficial readings in one instrument!

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IDEAL METAL CUTTING SAW FOR YOUR SHOP!

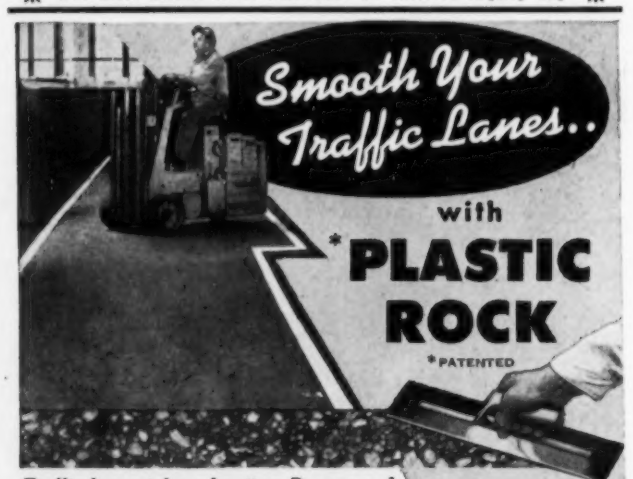
Kalamazoo **BAND SAW**

A veritable workhorse in any shop. Cuts bars, angles, tubes, pipe, and rounds with no burr, minimum kerf. Works fast, smooth, and accurately. Uses standard 1/3 HP 110/60/1 motor. Complete portable. Write for details on this low cost metal cutting saw.

Model 610-S. Capacity 6" round, 6" x 10" flat. Coolant equipment available.

MACHINE TOOL DIV. *Kalamazoo* TANK and SILO CO.
824 HARRISON ST., KALAMAZOO, MICH.

For more details circle NED-5967 on enclosed inquiry slip



Traffic lanes take a beating. Renew and protect them with Plastic Rock. It packs hard, improving under heavy traffic. Ten-year old floors show no wear. Plastic Rock reduces noise, is fire-resistant, skid-safe, wet or dry; bonds perfectly to concrete, wood or steel. All ingredients packed complete in a handy barrel. Your own crew or contractor can easily apply. Plastic Rock puts shock-absorbers on your floor.

in 48 HOURS!

ASK FOR REPORT 220-N-8.

UNITED LABORATORIES INC., 16804 Euclid Ave., Cleveland 12, Ohio

TESTED-APPROVED ULI UNITED LABORATORIES INC.
PRODUCTS AND PROCESSES for PROTECTING PROPERTY
Field Representatives All Over The World

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Eliminate stamping handling

with the **Buschman Press-Vator**

Any press and especially a high out-put type operates at top efficiency and lowest cost only when parts flow smoothly from the dies. The Buschman Portable PRESS-VATOR solves this problem and also virtually eliminates handling. Parts are delivered automatically and continuously to tote box, truck or gravity chute which conveys them to the next operation.

The PRESS-VATOR is available in two standard models, 6 or 8 feet long with a 12" belt. The sturdy frame is mounted on two wheels for easy positioning. On the 8 foot model, minimum loading height is 7", maximum discharge height 86" at an operating angle of 50°.

Put the money-saving PRESS-VATOR to work in your plant. Write today.

THE E. W. BUSCHMAN CO., INC.
Spring Grove at Winton Pl.
Cincinnati 32, Ohio

For more details circle NED-5972 on enclosed inquiry slip

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Send for
RUBYFLUID
Soldering Flux
Special Offer

For $1 Ruby will send you one pint of liquid and one half pound of paste soldering flux.

Try it! See for yourself the amazingly stronger, smoother and longer lasting unions you get when you use Rubyfluid.

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5948	5998	6048	6098	6148	6198	6248	6298	6348	6398	6448	6498	6548	6598	6648	6698	6748	6798
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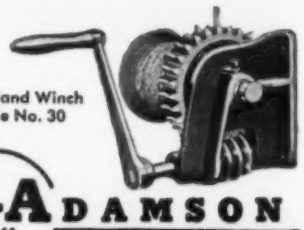
AT LOWEST COST

Don't take high-pay men from their regular jobs to lift or move heavy loads. It saves time and money to do most lifting and pulling jobs with an S-A Winch.

One man—with a hand winch—can lift as much as a ton—up to 3,000 pounds with an S-A Motor Winch. *Cut operating costs this economical way!*

Write for Winch Bulletin 340 and consider possible savings.

S-A Motor Winch Style No. K5



S-A Hand Winch Style No. 30

STEPHEN S-A DAMSON MFG. CO.

Tellevel Bin Level Controls • Car Loaders
SACO Speed Reducers Car Pullers • Winches
SealMaster Ball Bearings

12 Ridgeway Ave., Aurora, Illinois

For more details circle NED-5976 on enclosed inquiry slip

How to save Labor and Money by Centralizing Lubrication

FOR more than 20 years, Farval has been saving manpower and money for users. Through efficient, dependable lubrication of machines and industrial equipment of all kinds, Farval saves 4 ways: It saves oiling labor, it saves lubricant, it reduces bearing expense, it eliminates down time.

The Farval System is a positive mechanical method of delivering oil or grease under pressure to a group of bearings from one Central Station, in exact quantities, as often as desired. It consists of a central pumping unit, two main supply lines and a measuring valve for each bearing.

Bulletin 25 gives you the facts and figures to apply to your own lubrication problems. The Farval Corporation, 3283 East 80th St., Cleveland 4, Ohio.

Write for *FREE* Bulletin 25

FARVAL
CENTRALIZED SYSTEMS OF LUBRICATION

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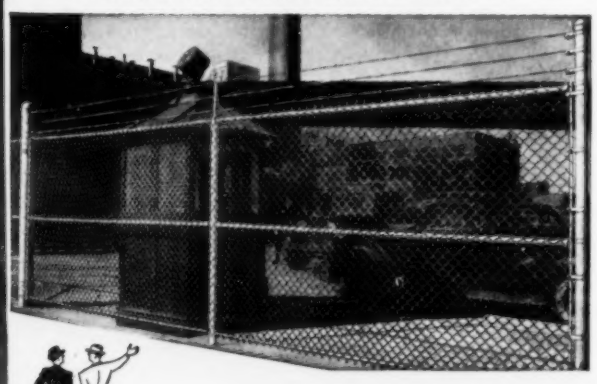
• AMERICA'S FIRST WIRE FENCE •



Defense against hazards which could hinder or stop production is a major function of Page Chain Link Fence, guardian of persons and property for more than 60 years. Consult the skilled Page Fence erecting firm near you, whose name we will send with fence data on request. Cost estimates, no obligation. For information:

Write to PAGE FENCE ASSOCIATION in Monessen, Pa., Atlanta, Bridgeport, Chicago, Denver, Detroit, Los Angeles, Philadelphia, New York or San Francisco.

PRODUCT OF PAGE STEEL & WIRE DIVISION OF AMERICAN CHAIN & CABLE COMPANY, INC.

For more details circle NED-5978 on enclosed inquiry slip

MOISTURE METER
measures content of wood waste

Moisture content of wood waste employed in plywood cores, pressed furniture and other fabricated wood products can be checked accurately with this model PD 1 Moisture Register. It is specifically designed for testing wood flour, shavings, chips, sawdust and similar byproducts. Instrument has penetration of 3 in., is portable and operates simply. Gun electrode is pressed against sample of material in small container, and moisture content is read directly on dial. Made by **Moisture Register Co.,** Dept. NED, 1510 W. Chestnut St., Alhambra, Calif.

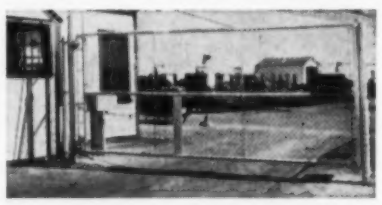
For more details circle NED-5979 on enclosed inquiry slip

AIR FLOW SWITCH
used in cooling electronic equipment

Designed to guard against tube failure in event of blower failure or air passage obstruction, Cat. 113 improved vane type pressure air flow switch is used in forced air cooling system of electronic equipment. Switch will operate on minimum static pressure of 0.2-in. water gage. Electrical rating is 5 amp at 250 v ac. Vane traveling in duct actuates sensitive snap-action switch. Unit measures 1½ x 2 x 2¾-in. Switch can be made in other ranges and physical dimensions to meet specific applications. Made by **Henry G. Dietz Co.,** Coral Designs Div., Dept. NED, 12-16 Astoria Blvd., Long Island City 2, N. Y.

For more details circle NED-5980 on enclosed inquiry slip

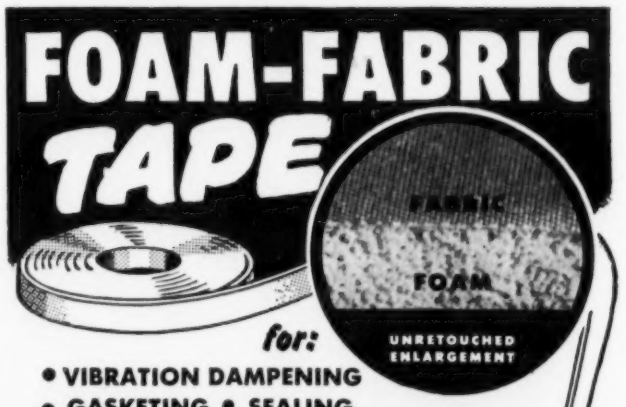
GATE OPERATOR
for double, single or sliding gates



Button controls make it possible to open or close double or single swinging and sliding gates by remote control when gate is equipped with Electric Doorman gate operator. Plant executives also can control gates by Radiomagic remote control from their cars. Standard time to open or close double swing gates is 5 to 8 seconds. Available controls include radio, key post switch, electric eye, pull cord and ground trip types. Operators are furnished with steel mounting channels, weatherproof steel covers, safety clutch, thermal overload, heavy duty double-wound motor and adjustable limit switch. All exposed parts are rustproofed. Units can be disconnected easily in case of power failure. Made by **Electric Power Door Co.,** Dept. NED, 2127 E. Lake St., Minneapolis 7, Minn.

For more details circle NED-5981 on enclosed inquiry slip

FOAM-FABRIC TAPE



for:

• VIBRATION DAMPENING
• GASKETING • SEALING
• WEATHER STRIPPING • INSULATING...

NEW **"ANDAL"** FOAM-TAPE combines the functional cushioning action of foamed-latex with the tensile strength of cloth. Formed by a new patented process that permanently embeds cloth in thin gauges of foam, **"ANDAL"** industrial tape is recommended for a wide variety of uses.

FOAM-TAPE can be furnished having either water-soluble or pressure-sensitive adhesive to meet individual requirements. This versatile material can be supplied in widths from ⅜-inch to any desired maximum and in lengths up to 25 feet. Foam gauges range from $\frac{1}{16}$ to ¼-inch.

Write Today For Sample.

275-AA

ANDREWS-ALDERFER PROCESSING CO., INC. 128-2 ASH ST., AKRON 8, OHIO

For more details circle NED-5982 on enclosed inquiry slip

Calling all users of Speed Reducers!

Get the new **Cleveland Book** *FREE*

Bulletin 130 gives rating tables, dimensions and other data you need in selecting the right sizes in standard worm-gear speed reducers. Ask for your copy.

New bulletins on other types of Cleveland worm gear drives and worm-gear sets also available. Outline your needs. The Cleveland Worm & Gear Co., 3283 E. 80th St., Cleveland 4, Ohio.

CLEVELAND Worm Gear *Speed Reducers*

For more details circle NED-5983 on enclosed inquiry slip

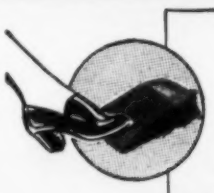
● Put HERC-ALLOY Steel Chain on the toughest job you can find. Let HERC-ALLOY service-experience records give you first hand, the undeniable answers in black and white.

Production executives and safety directors who have used HERC-ALLOY for slings or other applications agree they have yet to find an alloy steel chain superior to HERC-ALLOY.

COLUMBUS McKINNON
CHAIN CORPORATION
(Affiliated with Chisholm-Moore Hoist Corporation)

GENERAL OFFICES AND FACTORIES: TONAWANDA, N. Y.
SALES OFFICES: NEW YORK • CHICAGO • CLEVELAND • SAN FRANCISCO
Other Factories at Angola, New York, St. Catharines, Ontario and Johannesburg, S. A.

For more details circle NED-5984 on enclosed inquiry slip



TIP-TOE CONTROL
ASSURES
TIP-TOP PRODUCTION

. . . especially from women workers!

5½"x3¼"x1¼" Weighs only 1 lb.

SIMONDS
LINEMASTER, JR.
FOOT SWITCH
SIMONDS MACHINE CO. Inc.
33 Viking Terrace Southbridge, Mass.

Tip-toe control operates Linemaster, Junior's lightweight switch by momentary contact of toe—while heel rests comfortably on floor! Allows full use of both hands, increases production, prevents accidents, makes work easier. Neat-looking, streamlined, aluminum housing with black crackle enamel finish.

Let us quote on your special switch requirements

WRITE FOR BULLETIN

"LINEMASTER," the Leader!

For more details circle NED-5985 on enclosed inquiry slip

READY TO RUN—IMMEDIATE DELIVERY!

Sutton MOTOR DRIVEN PRESSURE BLOWERS

THREE SIZES ¼, ½, 1 H.P.

MADE OF LIGHTWEIGHT CAST ALUMINUM ALLOY

CENTRIFUGAL TYPE designed to deliver an even, non-pulsating flow of air for blowing or exhausting. Universal as to rotation and discharge. Direction of discharge may be changed to any of eight 45 degree positions. • Housing, base, support, and impeller are constructed of cast aluminum alloy to reduce weight and increase strength. Straight wall construction reduces windage and increases efficiency. • Powered by standard 3450 r.p.m. direct-connected 60-cycle ball bearing motor in choice of open or totally enclosed types. Three sizes: ¼, ½ and 1 H.P. with capacities from 100 to 800 cu. ft. per min. at static pressures from ½" to 6".

USED FOR removing dust from grinding, buffing and polishing equipment; for conveying cotton, wool, saw dust, shavings, etc.; for exhausting smoke fumes and vapor; to furnish blast for forges, furnaces, etc.; and for cooling and drying purposes.

WRITE FOR LITERATURE AND PRICES

Sutton Manufacturing Corp.

126 WEST WILSON AVE. NORFOLK, VA

For more details circle NED-5986 on enclosed inquiry slip

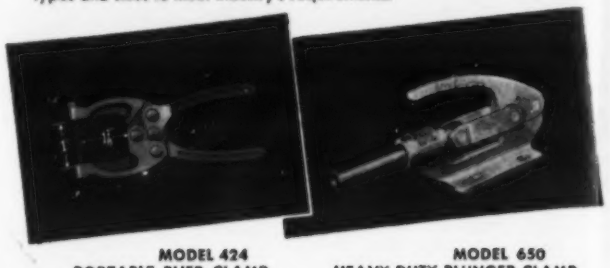
ADDRESSING MACHINE gives sharp, clean impressions

Breaking or tearing of address tape is practically eliminated on Address King addressing machine which makes sharp, clean and clear impressions. Address tape winds automatically, forward or reverse, at operator's direction. No rewinding is necessary, and impressions are made as fast as operator can feed machine and operate lever. Adjustment for size of item to be addressed is quickly and easily made. Fluid control is wickless and automatic. All steel parts of cast aluminum frame machine are plated for rustproofing. Machine measures 8½ x 8 x 7 in. and weighs 7 lb. Made by **American Photo Laboratories,** 26 N. Loomis St., Chicago 7, Ill.

For more details circle NED-5989 on enclosed inquiry slip

If you have to HOLD ANYTHING in your production operations

Hold EVERYTHING with "DE-STA-CO" Toggle Clamps in welding, riveting, bonding, machining and assembly. • Fast clamping, positive holding pressures, instantaneous release—Toggle Clamps speed up your operations and cut your costs. • There are more than 40 different Toggle Clamps manufactured by Detroit Stamping Company in various types and sizes to meet industry's requirements.



MODEL 424 PORTABLE PLIER CLAMP
For one-hand use in cramped work areas and small space. Deep jaw capacity but only 4½" in length.

MODEL 650 HEAVY DUTY PLUNGER CLAMP
For "push-pull" work-holding jobs where considerable pressure is needed. Compact; up to 4000 lbs. capacity.

MODEL 235-U RETRACTABLE CLAMP (Not illustrated)
Quick, unimpeded loading and unloading of fixtures easily possible with this one. Up to 750 lbs. pressure.

Ask for "DE-STA-CO" Toggle Clamp Catalog and name of representative nearest you who is stocking our entire line of Toggle Clamps.

DE-STA-CO DETROIT STAMPING COMPANY
360 MIDLAND AVE. • DETROIT 3, MICH.

For more details circle NED-5993 on enclosed inquiry slip

PLASTIC WORK GLOVE made with rough palm surface

Rough palm surface of Plyglov line of plastic gloves minimizes slipping in handling of oily sheets, plus adding to the life of glove. Of heavy-duty type, gloves are light in weight and free of skin irritating properties. Model B-2100-N gloves are offered in knit wrist style only at present, with gauntlet and safety cuff styles to be available. Made by **Milburn Co.,** Dept. N, 3245 E. Woodbridge St., Detroit 7, Mich.

For more details circle NED-5990 on enclosed inquiry slip

You can NOW speed deburring, chamfering, pointing, facing, center-drilling, and reaming operations with

PINES END-FINISHING MACHINES

Handle broad range of rod, tube, and pipe end-finishing work with speed and precision. Exclusive chuck feature clamps and feeds work to cutters in one motion. Operator always has one hand free for stock handling. Designed with quick interchangeable tool holders and chuck inserts, 8-speed sheave — 760 to 3920 r.p.m., hardened and ground spindle, grease-sealed precision bearings. Automatic swing-type stock stop assures fast, accurate positioning. Entire unit is portable, takes up small space, handles stock diameters up to 2". Max. feed is 1¼". Larger sizes up to 5" capacity available. **Typical production:** 800 tube ends per hour.

(Above) Pines 2" High Production End-Finishing Machine equipped with foot-controlled air operating cylinder. Clamp, feed, and return cycle is automatic. Operator has both hands free for stock handling. Supplied similar to hand-operated unit.

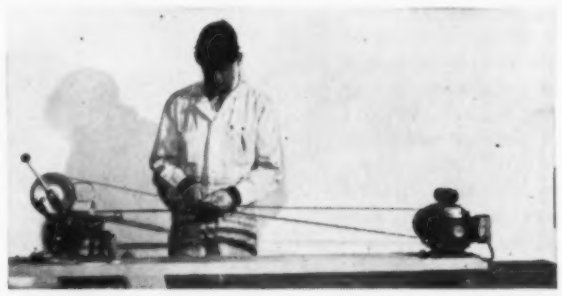
Write for free Bulletin
Write today for free bulletin and learn how these machines are built to save time on a wide range of work.

PINES ENGINEERING CO., Inc.
Specialists in Tube Fabricating Equipment
641 WALNUT • AURORA, ILLINOIS

For more details circle NED-5987 on enclosed inquiry slip

ABRASIVE BELT FINISHING UNIT speeds grinding and deburring

Inside diameter grinding, polishing and deburring operations are performed readily with this Belt Strapping unit. It consists of polishing jack on motor drive and spring-



tension backstand idler. Foot treadle releases abrasive belt tension and permits slipping at drive unit. Belt can then be threaded through opening of piece to be finished. Metalite cloth abrasive belts are available in grit ranges from very coarse to very fine to produce finishes from rough removal of mold fins to polished surface in preparation for plating. This nonpatented machine was developed by **Behr-Manning Corp.,** P. O. Drawer 808, Troy 1, N. Y.

For more details circle NED-5991 on enclosed inquiry slip

WHAT ARE YOUR MAGNETIC SEPARATOR PROBLEMS?

Remington Rand, Inc., Tabulating Machine Division, Ilion, New York, are one of many manufacturers using Homer Magnetic Separators to cut sorting and handling costs in the processing of ferrous metal parts.

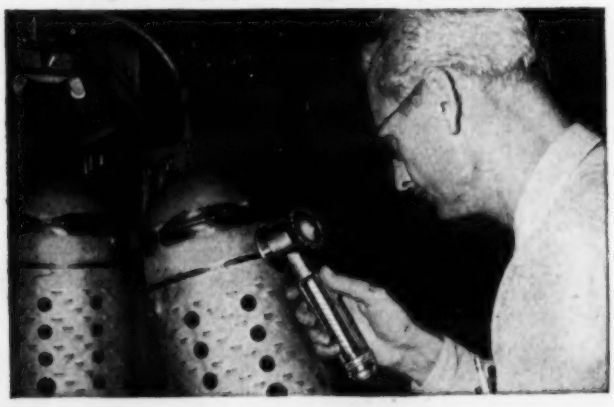
In the operation above, ferrous tabulating machine parts are quickly sorted from abrasive tumbling stones, saving many valuable man hours, and permitting the handling of larger quantities of finished parts. If you have a similar problem—consult us at once—Homer Engineers will be glad to recommend the type of magnetic equipment you need. Bulletins upon request.

Homer The HOMER MANUFACTURING CO., Inc.
Dept. I-25 LIMA, OHIO

Producers of Magnetic Separator Equipment Since 1923

For more details circle NED-5994 on enclosed inquiry slip

Another FLASH-O-LENS at work—inspecting jet engine spotwelds



"The FLASH-O-LENS illuminated magnifier is of great value in guarding against any possible flaws in spotwelding jobs on jet engine components," says Mr. M. C. Ring, in charge of jet assembly and tooling inspection at Ryan Aeronautical Company, San Diego, California.

FLASH-O-LENS *illumination* puts light on the field of vision —and *not* in the worker's eyes. FLASH-O-LENS *magnification* gives sharp, detailed enlargement for accurate inspection.

You can save inspection time—improve product quality—with this compact instrument. Write today for free literature.

E.W. PIKE & COMPANY
492 NORTH AVE. ELIZABETH 3, N. J.

For more details circle NED-5988 on enclosed inquiry slip

For more details circle NED-5992 on enclosed inquiry slip

For Safety's Sake Use DAYTON SAFETY LADDERS

Maintenance men everywhere rely on Dayton Safety Ladders for maximum safety and convenience. Daytons are constructed of tested airplane spruce and reinforced with rigid steel supports to give great strength and lightness of weight.

Handrails of steel guard the large roomy platform for added safety. Half of platform can be raised to form an extra step, when needed. These famous ladders can be set up instantly, are easy to carry and fold compactly for storing. Automatic locking feature insures safety while ladder is in use.

Sizes 3 feet to 16 feet in height (measured from ground to platform) with standard rubber safety shoes at no extra cost.

Write today for Bulletin No. 10

DAYTON SAFETY LADDER CO.
2339 GILBERT AVE. CINCINNATI, OHIO
In Canada—Safety Supply Company—Toronto

For more details circle NED-5995 on enclosed inquiry slip

HOT MELT PLASTIC COATINGS for GEARS • TOOLS • PRECISION PARTS

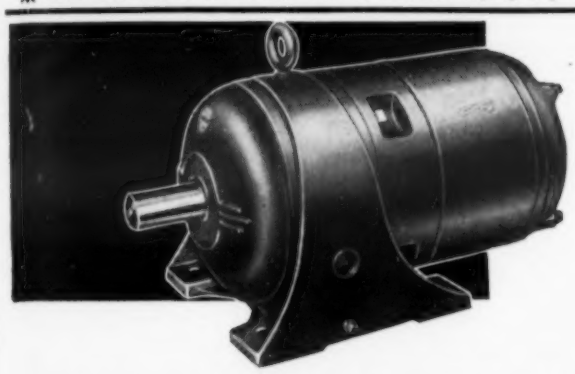
BEFORE SECONDS AFTER

Dip Coated • Protected

DIP-PAK Protect vital, expensive tools, gears, and machined parts during storage and shipping with Fidelity's durable, transparent plastic coatings. Merely melt coating briquette, dip parts, cool. Lasts indefinitely. Tough; abrasive, moisture, rust resistant. To remove, slit, peel. Re-melt, re-use coating. Economical, practical, rapid. Protect parts; save money.

Write for Bulletins and Free Samples
Fidelity Chemical Products Corp.
476 Frelinghuysen Avenue, Newark 5, N. J.

For more details circle NED-5996 on enclosed inquiry slip



FOOTE BROS.-LOUIS ALLIS
Gearmotors

PROMPT DELIVERY! You can count on prompt delivery of Foote Bros.-Louis Allis Gearmotors—the finest Gearmotor obtainable. Superior in design and construction. Available in single, double, and triple reductions to provide output speeds from 780 down to 7.5 r.p.m. Capacities from 1 horsepower through 150 h.p. Available with open, drip-proof, splash-proof, enclosed and explosion-proof motors.

Write for Bulletin GMA

FOOTE BROS. GEAR AND MACHINE CORPORATION
Dept. NE, 4545 S. Western Blvd. • Chicago 9, Illinois

FOOTE BROS.
Better Power Transmission Through Better Gears

For more details circle NED-5997 on enclosed inquiry slip

Two types, 7 basic sizes. Capacities from 400 CFM to 23,500 CFM.

nyb COMET EXHAUSTAIR

Propeller type ventilating fans deliver large volumes of air at low resistance and low current consumption. All wheels are machine balanced for smooth, vibration-less operation. They are laboratory tested, accurately rated and fully guaranteed in strict accordance with Standard Codes.

CERTIFIED RATINGS — NAFM

Write for Bulletin 494

THE NEW YORK BLOWER COMPANY
GENERAL OFFICES • 32nd STREET & SHIELDS AVENUE • CHICAGO-16
FACTORIES AT LAPORTE, INDIANA AND CHICAGO, ILLINOIS

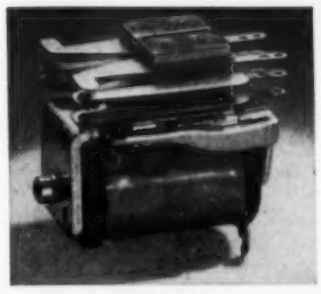
For more details circle NED-5998 on enclosed inquiry slip

CONSTANT DELIVERY PUMPS
for pressures up to 3000-5000 psi

Heavy duty type HG axial rolling piston pumps operate quietly at speeds up to 1800 rpm. Volume of oil delivered varies with drive shaft speed. Three sizes develop pressures up to 3000 and 5000 psi. Each compact unit consists of fixed-stroke pump, supercharging gear pump, gear pump relief valve and adjustable reverse flow type high pressure relief valve. Over 10 hp is transmitted by units measuring 7x10x13 in. About 135 cu in. per minute excess gear pump oil at 100 psi is available for auxiliary purposes. Pump, work and machine are overload-protected. Photo shows HG pump with adapter and 10 hp electric motor. Made by **Oilgear Co.**, 1316 W. Pierce St., Milwaukee 4, Wis.

For more details circle NED-5999 on enclosed inquiry slip

DIRECT CURRENT RELAY
small unit has high sensitivity



Small size, lightweight and resistance to vibration make this type R direct current relay suitable for aircraft service. It retains, in improved form, reed armature suspension used in type K relays but does not supersede this type for all applications. Relay measures $1\frac{37}{64}$ in. long, 1 in. wide and $1\frac{59}{64}$ in. high with ten contact springs in either pileup. Coils can be single or double-wound; armature can be single or double arm; and operating voltage can be up to 230-v dc. Made by **C. P. Clare & Co.**, 4719 W. Sunnyside Ave., Chicago 30, Ill.

For more details circle NED-6000 on enclosed inquiry slip

ADJUSTABLE PALLET
collapses for storage or shipment

Adaptable to any materials handling pallet job within its size and capacity limits, the A-C pallet collapses to one-fifth size for storage or shipment. Two-way adjustment is accomplished by varying angle between legs or by sliding legs to desired spot through steel guide plates. It can be locked in any position by eccentric lever in center. Adjustments range from 24x24 in. to 72x72. Weights up to 3000 lb. can be handled, depending on shape and length of adjusted pallet. All legs are identical, interchangeable and can be repaired with commercial lumber if damaged. Three types are light duty single deck for fork and hand trucks, heavy duty-double deck for fork trucks and heavy duty-double deck for fork and hand trucks. All types are offered with 36, 40, 48 and 60 in. legs. Made by **Spring Wood Products, Inc.**, New London Rd., Geneva, O.

For more details circle NED-6001 on enclosed inquiry slip

If you move hot, abrasive materials in your operations, you'll do it faster and more economically with either a Simplicity Os-A-Veyor (oscillating type conveyor) or a Model PT Positive Action Conveyor. Simplicitys are ruggedly built for tough duty. Simple power units and operating mechanism mean low maintenance costs and easy servicing. Model PT conveyors, built in lengths of 100', can be installed in multiples to meet any level-operation requirement. Os-A-Veyor types, available in lengths to 30' and 12" to 6' widths, will operate on an incline depending on product being handled. Simplicity conveyors give positive rate of feed control and handle all kinds of material, regardless of temperature and abrasive characteristics, without damage. Write, wire, or phone . . . today.

92

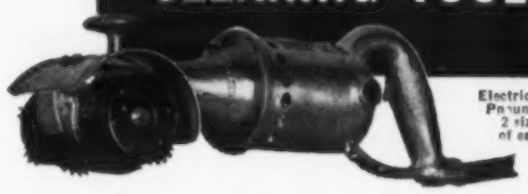
Simplicity
ENGINEERING CO., DURAND, MICH.

For more details circle NED-6002 on enclosed inquiry slip

Remove SCALE, PAINT, RUST Quickly . . . Easily

USE AURAND CLEANING TOOLS

For any hard metal or stone surface—iron—steel—brick—concrete—etc.



Electric and Pneumatic 2 sizes of each

It's easy to remove paint, scale, rust and other accumulations with AURAND Cleaning Tools. Powered rotary chipping does a thorough cleaning job in less time. No special skill required. Even depth surface is assured by an adjustable shoe control. Cutter heads are renewable.

For further information, address Dept. 14

AURAND MFG. & EQUIP. CO.
2643 Colerain Avenue • CINCINNATI, OHIO

For more details circle NED-6003 on enclosed inquiry slip

Cut Polishing Time Improve Surface Quality
with "LINDE" FINE ALUMINA POWDERS

Obtain superior finishes, free from microscopic pits and scratches in a fraction of the usual polishing time. Use less abrasive and use it directly without levigation and other wasteful preparatory steps. They can also be compounded with waxes and used in stick form.

LINDE Fine Alumina Powders are characterized by ultra-fine, uniform particle size, high purity, and swift polishing action. They have gained wide-spread acceptance in polishing materials ranging from metallographic specimens to gemstones and noble metals.

Call or write any LINDE office and we will be glad to discuss your particular polishing applications.

	Type A	Type B
Chemical Composition	Alpha Al_2O_3	Gamma Al_2O_3
Particle Size (approximate)	0.3 Microns	Less than 0.1 Microns
Hardness (Moh's) (Equivalent to crystalline material)	9	8
Crystalline Structure	Hexagonal	Cubic

The term "Linde" is a trade-mark of Union Carbide and Carbon Corporation.

LINDE AIR PRODUCTS COMPANY
A DIVISION OF UNION CARBIDE AND CARBON CORPORATION
30 East 42nd Street, New York 17, N. Y. UCC Offices in Other Principal Cities
In Canada: DOMINION OXYGEN COMPANY, LIMITED, Toronto

For more details circle NED-6004 on enclosed inquiry slip

PRECISION *Control*

***by* POWERS**

IMPROVES PRODUCTION • LOWERS COSTS

End losses caused by *over* and *under* heating of processes or operations requiring precise control. Install Powers air operated temperature regulators. Their accurate control helps to improve quality of products and speed up production.

WRITE FOR BULLETIN 370

THE POWERS REGULATOR COMPANY,
2740 Greenview Ave. Chicago 14, Ill.
Offices in 50 Cities—59 years of Temperature Control

(304)

For more details circle NED-6005 on enclosed inquiry slip

SIMPLEX
RATCHET LOWERING
JACKS

Lift or Lower Notch-by-Notch—Cannot be Tripped

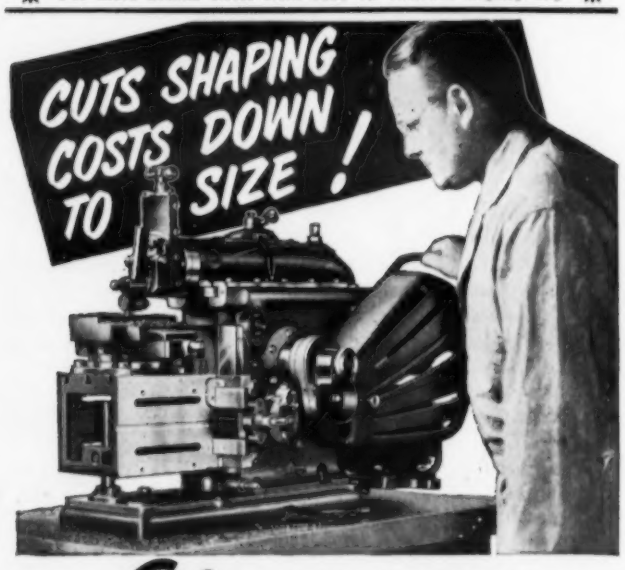
With Simplex Ratchet Lowering Jacks a minimum of toe clearance is required—and only Simplex Jacks provide equal lift capacity *on toe or cap.* In fast jacking action, all-purpose utility, extra safety features and rugged strength for longer life, Simplex Ratchet Lowering Jacks give you more for your money! Capacities of 1½ to 35 tons. Write today for Bulletin: Industrial 49.

SAFETY SUGGESTION—Use thin wood block—don't lift or lower steel against steel.

Simplex LEVER · SCREW · HYDRAULIC Jacks

TEMPLETON, KENLY & CO.
1010 South Central Avenue • Chicago 44, Illinois

For more details circle NED-6006 on enclosed inquiry slip



Atlas 7" SHAPER

Easier to set up . . . cheaper to operate . . . dependably accurate . . . that's the record of Atlas in thousands of plants.

On any operation within its capacity it will save money.

Atlas was the *first* 7" shaper and *no one yet has matched its sound construction features, performance, or value.* Send for detailed catalog. Compare it feature for feature. See for yourself.

40th YEAR Atlas **ATLAS PRESS CO.**
823 N. PITCHER ST.
KALAMAZOO, MICHIGAN

For more details circle NED-6007 on enclosed inquiry slip

WHAT DO YOU KNOW about Laminated Plastic TUBING?

Take Synthane laminated plastic tubing for example. Do you know that it is non-metallic, corrosion resistant, has excellent dielectric strength? Do you know it is made in rolled and molded forms in many grades and sizes? Do you know which grades are best for what purposes? Or how Synthane compares to metal tubing in strength and weight?

For the answers to these and other tubing questions you may have, use the coupon below to get your copy of the Synthane Tubing Folder.

Sheets
Rods
Tubes
Molded Macerated
Molded Laminated
Fabricated Parts

SYNTHANE

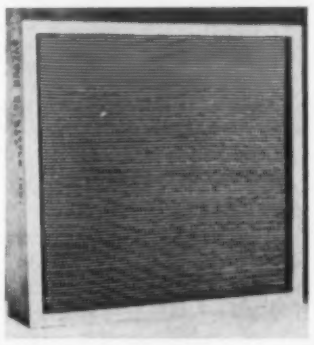
SYNTHANE CORPORATION
Northeast River Road
OAKS, PENNSYLVANIA

Gentlemen:
Please send me the Synthane Tubing folder.

Name _____
Firm name _____
Address _____
City _____ Zone _____ State _____

For more details circle NED-6008 on enclosed inquiry slip

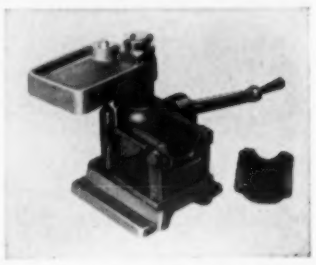
AIR FILTER
removes over 99.98% of matter



Where absolutely clean air is needed for processing, or where toxic or radioactive fumes or dust must be prevented from escaping or entering working areas this air filter removes over 99.98 per cent of all foreign matter. Individual units can be arranged in multiple banks to handle any desired amount of air. Particles as small as 0.2 to 0.3-micron are removed. As filter is used, efficiency rises. Static pressure resistance when new is less than 1 in. of water. Filtering material is soft, felt-like paper made of treated pulp containing fine asbestos fibers. Dimensions are 5⅞ x 24 x 24 in. and 11½ x 24 x 24 in. for 500 and 850 cu ft of air per minute sizes, respectively. Made by **Cambridge Corp.**, 350-b S. Geddes St., Syracuse, N. Y.

For more details circle NED-6009 on enclosed inquiry slip

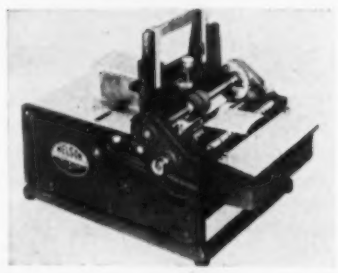
DRILL FIXTURE
top-loading unit made in four sizes



Bushing plate of Auto-Swing-Jig top-loading drill fixture lifts and swings aside automatically when operating handle is moved in proper direction. On reverse stroke of handle, bushing plate swings back in place over workpiece and locks in clamping position. Closed position alignment is maintained by two large hardened and ground steel pins. Fixture is applicable to drill press operations which must have deep nesting or tall locating pins as bushing plate is out of way during reloading. With plate in this position, operator has unhampered vision. It is made in four sizes. Made by **A. H. Bowlzer Mfg. Co.**, 10132 San Vincente Ave., South Gate, Calif.

For more details circle NED-6010 on enclosed inquiry slip

LABEL FEEDING MACHINE
dispenses ½ to 5-in. wide labels



Speeding up label application by eliminating hand feeding, Auto Feed labeler regulates thickness of glue film by control knob. Labels are friction-fed from bottom of stack by tapping one of two actuating levers. Retard finger, adjustable for thickness of label, feeds only one label at a time. Model F handles labels from ½ to 5 in. wide and any length over 2 in. Made by **Nelson Label Machine Corp.**, 39 Main St., East Orange 1, N. J.

For more details circle NED-6011 on enclosed inquiry slip

Severance CHATTERLESS TOOLS HIGH SPEED CARBIDE

SEVERANCE TOOL INDUSTRIES, Inc.
761 Iowa Ave. Saginaw, Michigan

For more details circle NED-6012 on enclosed inquiry slip

RUBBER DOES IT!

Only rubber does that job so vitally necessary in countless applications—resists the damaging action of oils, gases, fluids, greases, continuous flexing, abrasion, extreme high and low temperatures, and many other problem conditions. Throughout industry, Acushnet precision-molded rubber parts and products of natural and synthetic rubber are performing their jobs with the greatest efficiency and economy. We'll gladly suggest remedies for your troublesome applications.

Acushnet PROCESS COMPANY
NEW BEDFORD, MASS., U. S. A.
Address All Correspondence to 782 Belleville Ave., New Bedford, Mass.

For more details circle NED-6013 on enclosed inquiry slip

RECORDERS
RECORD TIME - COUNT QUANTITY

Actuated by an electrical impulse . . . operates on the output of a scaler, photo tube, limit switch or any similar device. Records counts with relation to time and quantity on a roll of tape . . . automatically resets to zero.

In Radioactive Research, it saves precious man hours and results in greater economy and efficiency.

In Industry it maintains a permanent record automatically, recording production and time each hour.

Whatever your counting problems, our Engineering Department can adapt these Recorders to meet your particular need.

Write for interesting booklet SC15

SCALES
WEIGHT RECORDERS
HI-SPEED COUNTERS

FOUNDED 1888

STREETER-AMET COMPANY
4101 N. RAVENSWOOD AVENUE · CHICAGO 13, ILLINOIS

For more details circle NED-6014 on enclosed inquiry slip

RUSTPROOF WATER
with ODORLESS . . NEUTRAL . . NON-TOXIC . . NON-INFLAMMABLE

IMMUNOL

Makes any kind of water rustproof and at the same time makes an efficient, neutral solvent which actually costs less as a finished solution than kerosene or mineral solvents.

IMMUNOL leaves a non-oily, invisible, non-tacky film of rust protection that will last indefinitely unless washed off and can be painted or lacquered over without removal. Parts can be left in the solution for days if desired or dipped for only a few moments.

Outstanding for such applications as cleaning ferrous metals; replacing alkalies and solvents; hydrostatic testing; rustproofing wire during processing; preserving bright finishes; preventing plating stains; protecting metal parts wrapped in paper without staining the paper, etc.

Send for Booklet:

Haas MILLER Corp.
4th & Bristol Sts. Philadelphia 40, Pa.

For more details circle NED-6015 on enclosed inquiry slip

Dependable Pumps mean Increased Output

MOTORPUMP

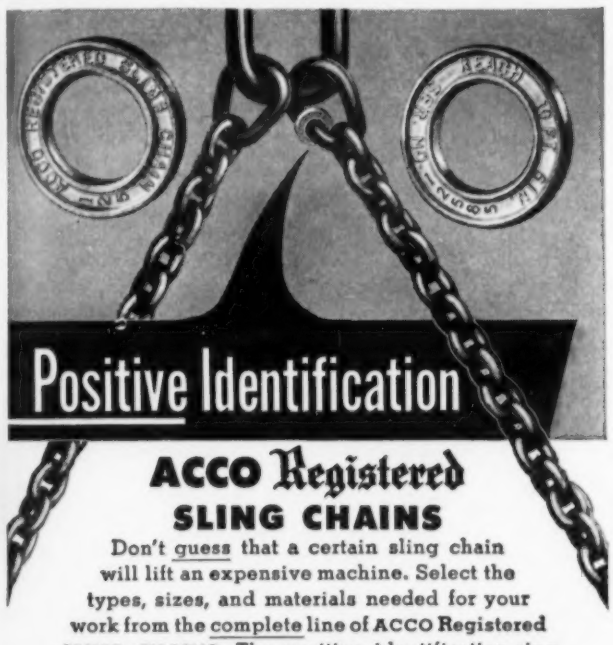
For handling hot or cold liquids in your plant, there's no better buy than Ingersoll-Rand MOTORPUMPS. Their compact design makes them rugged and strong with ability to stand up under severe service. No special foundations are needed. They can be bolted to your equipment and mounted in any position. And there is a MOTORPUMP to fit every need up to the delivery of 1800 gallons per minute. Don't fail to take advantage of the best pump buy on the market.

Ingersoll-Rand

11 Broadway, New York 4, New York

AD 9509-9

For more details circle NED-6016 on enclosed inquiry slip



Positive Identification

ACCO Registered SLING CHAINS

Don't guess that a certain sling chain will lift an expensive machine. Select the types, sizes, and materials needed for your work from the complete line of ACCO Registered SLING CHAINS. The positive identification ring on each one assures you that the unit was rigidly inspected and fully tested. *Send for* Catalog DH-80 *on selection, use, and care of sling chains.*

ACCO York, Pa., Atlanta, Chicago, Denver, Detroit, Los Angeles, New York, Philadelphia, Pittsburgh, Portland, San Francisco, Bridgeport, Conn.

AMERICAN CHAIN DIVISION
AMERICAN CHAIN & CABLE

In Business for Your Safety

For more details circle NED-6017 on enclosed inquiry slip

Get this FREE Answer Book on AIR COMPRESSORS

Contains detailed information on all 54 Champion Models, PLUS:

- How to Select the Proper Compressor
- Suggested Equipment Combinations
- Installation and Maintenance Tips
- Correct Wire Sizes for Motors
- Air Compressor Accessories
- Air Receiver Data
- Air Flow Table

The Champion Catalog is an invaluable guide to the factory using air power. It shows you the *21 extra features* built-in to every Champion Air Compressor. It shows you how you can save money and increase production by selecting compressors practically "tailor-made" to fit your needs. Write for your Free copy TODAY!

5643

CHAMPION

PNEUMATIC MACHINERY COMPANY
837 N. Pleasant Street, Princeton, Illinois

For more details circle NED-6018 on enclosed inquiry slip

PILOT CONTROLLED VALVE
three-way unit is packless

Alternate application and exhaust of pressure to and from equipment, cylinders or diaphragm chambers becomes automatic with installation of ASCO three-way pilot controlled valve. Suitable for handling air, gas or oil or any other noncorrosive fluid at temperatures not exceeding 180° F, packless internal piston operated valve is offered in 1, 1¼, 1½ and 2-in. pipe sizes. When solenoid is energized, exhaust port is closed and pressure is applied to delivery port. When deenergized, pressure supply is cut off and delivery port is connected to exhaust. Designs for 125 and 250 lb operating pressure are available. Standard solenoids are for 115 or 230 v ac or dc and for 25, 30, 50 or 60 cycles. Made by **Automatic Switch Co.**, 379-D Lakeside Ave., Orange, N. J.

For more details circle NED-6019 on enclosed inquiry slip

COLLET CHUCK
feature exceptional gripping power

Tools are held securely even on deep cuts in tough alloy steel by this B & V collet chuck which is Swedish made. However, milling cutters can be changed quickly by merely loosening locking nut. Rubber cushion insert in collet prevents damage to double-end cutters and other tools which are inserted in it. Available from stock, chucks are made in ⅛ to 1½-in. sizes. Distributed by **Eric S. Johnson Co.**, 232 E. Ohio St., Chicago 11, Ill.

For more details circle NED-6020 on enclosed inquiry slip

BATTERY CHARGER
for industrial power trucks

Selenium rectifier type charger for industrial truck batteries with up to 55 amp-hr capacity features automatic controller which governs amount and time of charge. Large plate area affords ample cooling without fan. Dual clock control gives same protection to new and old batteries, whether fully or partially charged, either in cold or warm areas. Temperature compensation is built into charger which can be plugged into standard 110/115-v 60-cycle outlet. Step-down transformer is furnished for 220-v outlets. Made by **Yale & Towne Mfg. Co.**, Philadelphia Div., Dept. M-1, Roosevelt Blvd. & Haldeman Ave., Philadelphia 15, Pa.

For more details circle NED-6021 on enclosed inquiry slip

"M-B" Model SS-SR 100,000 RPM SUPER-SPEED Pneumatic GRINDER

The only hand grinder with spindle speed of 100,000 R.P.M. on 100 pounds of air pressure. It has revolutionized hand grinder performance. Can be directed in any working position; operates with extreme ease. Steel construction throughout. Formed to fit the hand. Weighs only 14 ounces.

"Remember, Built-in Quality Remains Long after First-cost Disappears"

Representatives in Principal Cities

Also Other Models

Also Automatic Air Line Filters and Lubricators

Write for Literature

M-B PRODUCTS
46 Victor Ave.
Detroit 36, Michigan

For more details circle NED-6022 on enclosed inquiry slip

By Makers of RELIANCE Precision-Built MOTORS

A QUALITY-BUILT ELECTRIC **SPEED INDICATOR** TO IMPROVE YOUR PRODUCTION

ONLY $71 COMPLETE (less in quantities of two or more)

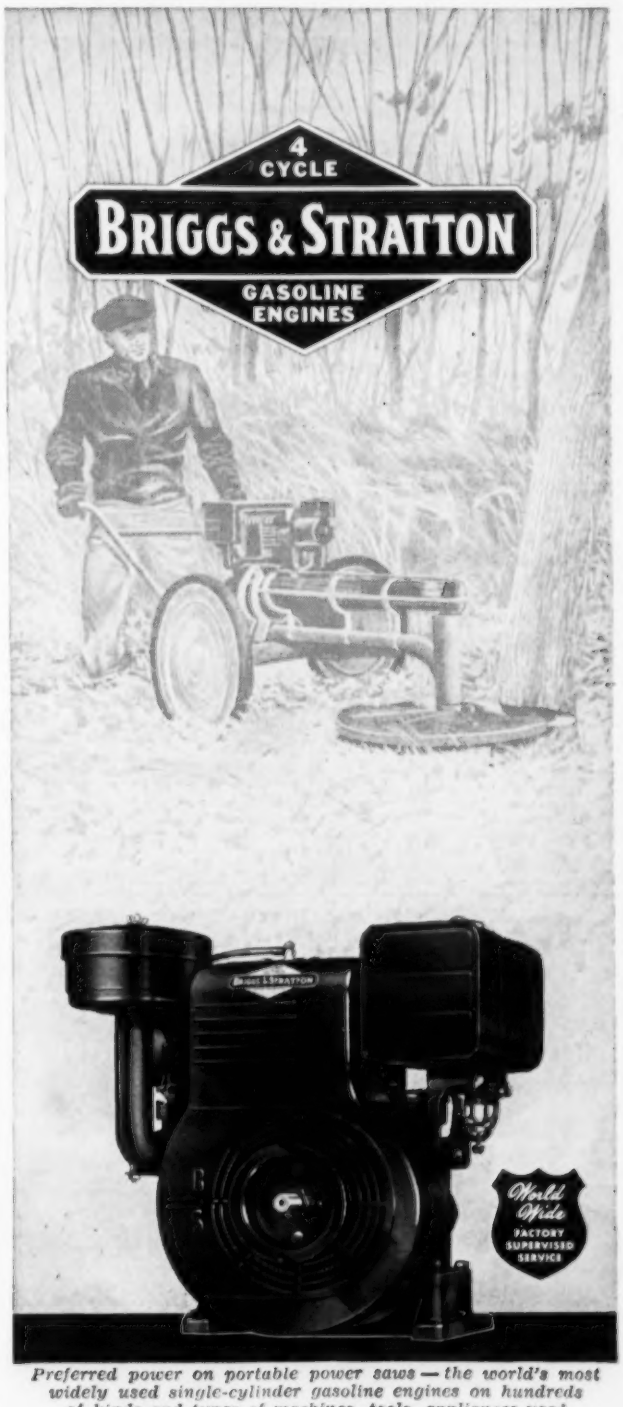
- **IMPROVES** quantity and quality of machine output.
- **DETECTS** machine troubles before costly repairs become necessary.
- **REDUCES** spoilage of materials in process.

This sturdy instrument gives accurate speed indications between 100 and 5000 rpm.—special scales available for other indications. Get all the facts—write for Bulletin A-2406 today!

RELIANCE ELECTRIC AND ENGINEERING CO.
1082 IVANHOE ROAD • CLEVELAND 10, OHIO

Sales Representatives in Principal Cities

For more details circle NED-6023 on enclosed inquiry slip



Preferred power on portable power saws—the world's most widely used single-cylinder gasoline engines on hundreds of kinds and types of machines, tools, appliances used by industry, construction, railroads, oil-fields, and on equipment for farms and farm homes.

DEVELOPED through years of building the right power for the toughest service Briggs & Stratton single-cylinder, 4-cycle, air-cooled gasoline engines assure the best in performance, long life, economy.

Briggs & Stratton Corporation,
Milwaukee 1, Wisconsin, U. S. A.

In the automotive field Briggs & Stratton is the recognized leader and world's largest producer of locks, keys and related equipment.

For more details circle NED-6024 on enclosed inquiry slip

SAFER LONGER...

Surety's Sureseal Synthetic has 10 times higher abrasion resistance, 4 times higher snag resistance, much higher chemical resistance than either rubber or standard synthetics.

..SO THEY COST LESS

SURETY SURESEAL
SYNTHETIC RUBBER GLOVES

THE SURETY RUBBER CO. Dept. N CARROLLTON, OHIO

IN CANADA: Safety Supply Co., Toronto, Ont.

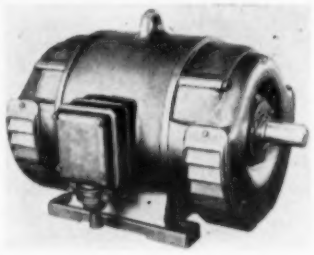
For more details circle NED-6026 on enclosed inquiry slip

CARGO CARRIER-TRACTOR has 2000-lb drawbar pull

Capable of pulling as many as ten loaded trailers, model 3600 industrial tractor has an 11-sq. ft. platform for additional load. It is powered by 13-hp Wisconsin engine through automotive type clutch and three-speed-and-reverse transmission. Features include electric starter, ¾-in. pitch roller chain final drive and handlebar type steering. Drawbar pull is 2000 lb. and capacity is 20 tons on roller bearing trailers. Turning radius is 57 in. left, 62 in. right, while dimensions are 79 in. long and 42 in. wide. Speed is 10 mph. Made by **Kalamazoo Mfg. Co.**, 1827 Reed St., Kalamazoo 24F, Mich.

For more details circle NED-6029 on enclosed inquiry slip

BRAKE & DRIVE MOTOR combined in single unit



Recommended for such applications as setting-up, adjusting and feeding motors for large machine tools, winches, hoists, cranes and other drives that require frequent starts and stops without creep or backlash, Quick-Stop combination brake and drive unit brakes and stops with 150 per cent of normal torque when power is cut. Mounting can be horizontal or vertical for forward or reversing operations. Motors are available in 0.3 to 8-hp ratings in drip-proof models or in 0.2 to 4-hp ratings in totally enclosed styles. Made by **Brown Boveri Corp.**, Dept. N, 19 Rector St., New York 6, N. Y.

For more details circle NED-6030 on enclosed inquiry slip

CARRYING CASES for calculators, adding machines

Carrying cases and mobile stands for Remington Rand printing calculators and adding machines increase application and mobility of both pieces of office equipment. Lightweight compact carrying case makes it possible to carry and use calculator away from office. Adjustable stand fits any printing calculator or adding machine made by company. Made by **Remington Rand Inc.**, Dept. NED, 315 Fourth Ave., New York 10, N. Y.

For more details circle NED-6031 on enclosed inquiry slip

Precision ROD CUTTING at High Speed with the New DI-ACRO ROD PARTER

DI-ACRO POWER PARTER

The DI-ACRO Rod Parters further increase the applications of "DIE-LESS DUPLICATING" as a cost cutting, time-saving production technique.

Do you require precision?—DI-ACRO Rod Parters hold tolerance to .001" on duplicated cuts. The ends are square, and roundness is maintained.

Do you want speed?—The Rod Parters exceed outputs of other methods with equal accuracy, on rods and bars up to ⅝". Torrington Roller bearings incorporated in an exclusive multiple leverage arrangement provide remarkable ease of operation.

DI-ACRO Power Parter has air cylinder cushioned for quiet and efficient operation. Each cutting cycle obtained with 4-way foot valve—leaving operator's hands free.

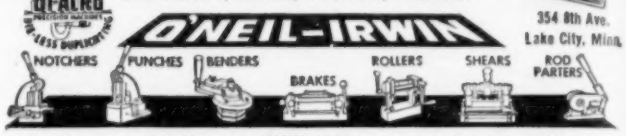
"PARTS OFF" MANY MATERIALS

All Hot and Cold Rolled Rods • Stainless Steel • Copper Chrome Molybdenum • Brass • Aluminum • Bi-metals Many Types of Plastics • Fibre • Rubber • Wood

GET "DIE-LESS DUPLICATING" CATALOG! Shows parts duplicated by DI-ACRO Benders, Brakes, Shears, Rod Parters, Rollers, Notchers, Punches.

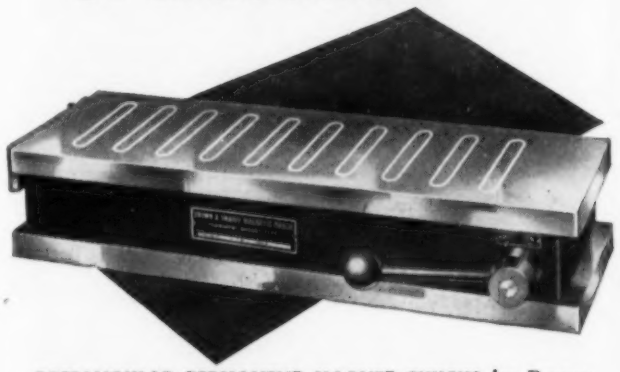
354 8th Ave. Lake City, Minn.

O'NEIL-IRWIN



For more details circle NED-6033 on enclosed inquiry slip

Save waste motion of machinists



RECTANGULAR PERMANENT MAGNET CHUCKS by Brown & Sharpe save machinists' time whenever they're used. A quick shift of a lever engages or disengages powerful magnetic holding power. On many jobs you can eliminate jigs or fixtures.

Permanent Magnet Chucks cost nothing to operate, hold as long as desired, have no wires to connect. Available in 8 sizes from 2-7/16" x 5¼" to 12⅛" x 36". Rotary models also available. For sale only in the United States and its territories. Write for catalog. Brown & Sharpe Mfg. Co., Providence 1, R. I., U.S.A.

We urge buying through the Distributor

BROWN & SHARPE

For more details circle NED-6034 on enclosed inquiry slip

Get the ONE flexible coupling that gives you single chain simplicity plus divided rollers

"RC" Couplings available in 30 sizes, ⅜ to 12 in. bore.

ONLY Link-Belt "RC" Flexible Couplings give you both. Divided rollers of Precision Steel Roller Chain equalize load . . . maintain proper balance at high speeds . . . adjust to reasonable misalignment and end float. Single-chain width means simplicity and economy.

There's a Link-Belt Roller Chain Coupling for ratings from fractional to 1000 hp. For complete information, write for Folder 2363.

LINK-BELT "RC" FLEXIBLE COUPLINGS

LINK-BELT COMPANY: Chicago 9, Indianapolis 6, Philadelphia 40, Atlanta, Houston 1, Minneapolis 5, San Francisco 24, Los Angeles 33, Seattle 4, Toronto 8, Springs (South Africa). Offices, Factory Branch Stores and Distributors in principal cities. 12,524

For more details circle NED-6027 on enclosed inquiry slip

CLEVELAND Top Quality High Carbon Heat Treated Cap Screws

Unusually dependable for strength, accurate fit and clean-running threads, Cleveland High Carbon Cap Screws are the most all-around satisfactory fastener you can use. Maximum strength, excellent qualities, good appearance. It pays you to use Cleveland Fasteners.

CLEVELAND Top Quality FASTENERS

THE CLEVELAND CAP SCREW COMPANY
2917 EAST 79TH STREET • CLEVELAND 4, OHIO
Warehouses: Chicago, Philadelphia, New York, Providence
Ask your Jobber for Cleveland Fasteners

For more details circle NED-6028 on enclosed inquiry slip

Read How to Sharpen Cemented Carbide Tools

FASTER... AT LOWER COST!

This free, 140-page booklet (FORM 167) shows you how to sharpen and recondition cemented carbide tools with a minimum expenditure of your valuable diamond wheels.

In it, Norton engineers, working with all leading carbide manufacturers, have covered every phase of carbide tool grinding: selection of wheels; techniques for grinding single-point tools, chip breakers, and multi-tooth cutters; tips on getting the most from your diamond wheels; and numerous other pertinent subjects in this highly specialized field.

Every toolroom supervisor and operator should have this authoritative booklet at his finger tips. Ask your nearby Norton Distributor for FORM 167, or write direct.

NORTON COMPANY
Worcester 6, Mass.
Distributors in all principal cities.

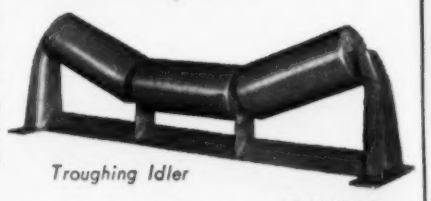
NORTON ABRASIVES
Making better products to make other products better

For more details circle NED-6032 on enclosed inquiry slip

Immediate Shipment

TRANSALL Heavy Duty Pre-Lubricated Idlers for Belt Conveyors

Manufacturers of a full line of Idlers and complete Belt Conveyor Systems for hauling any type of bulk material.



Troughing Idler

Compare!	Lubricated Idlers	TRANSALL Pre-Lubricated Idlers
Lubrication—Labor	Yes	NONE
Lubricant Cost	Yes	NONE
Belt Damage by Grease	Frequent	NEVER
Friction Factor	High & Variable	LOW & Constant
Grease Fittings	Costly	NONE

TRANSALL INC.
119 North 11th St. Birmingham 4, Ala.

For more details circle NED-6035 on enclosed inquiry slip

STOP PRODUCTION DELAYS WITH JEFFERSON SAF-T-LAG Thermal FUSES

SAF-T-LAG is a triple-action Fuse with a precision thermal cutout. The Jefferson SAF-T-LAG protects wiring and equipment against short circuits, eliminates unnecessary blows on harmless overloads, provides THERMAL protection which avoids damage caused by poor contacts or inadequate heat dissipation.

SAF-T-LAGS are engineered with varying lag-time capacities to accommodate differing work-load requirements of motors and electrical devices. They are approved by Underwriters' Laboratories, Inc.

JEFFERSON ELECTRIC COMPANY
Bellwood, Illinois

Write for complete SAF-T-LAG Story in Folder 482-ST.

For more details circle NED-6036 on enclosed inquiry slip

WHEN COOLING IS TO BE DONE IN A HURRY

It's a job for a MECO S-3

This powerful cooling fan is ideal for man and furnace cooling—and has the desirable feature of Quiet Operation.
Surest cure for losses in time and efficiency caused by heat.
Model illustrated rated 16,500 CFM.
Easy to handle, readily spotted wherever it's cooling blast is needed.
Many sizes available. Write for complete information.

THE MANUFACTURERS EQUIPMENT CO.,
218 Michigan Ave. Dayton 4, Ohio

For more details circle NED-6037 on enclosed inquiry slip

INVINCIBLE
Vacuum Units Reclaim:

bolts broken glass chemicals coffee cork crushed stone dirt explosives fabricated parts fertilizer flour fly ash fly lint frit gold grindings lead liquids nuts paper dust plastics oils ravelings sand sawdust silica dust soap shot soapstone spices sugar talc and MANY MORE.

Model 809-B—5HP

★ *By recovering or reclaiming almost anything that will pass through a vacuum hose, Invincibles quickly repay their costs . . .* Invincibles also serve as vacuum cleaners, keeping plants clean, safe and more productive by removing all industrial dust and dirt . . . Over 100,000 units are in use—5,000 for over 25 years . . . Ask for FREE BOOKLET illustrating uses of Invincible Vacuum Units.

INVINCIBLE VACUUM CLEANER MFG. CO.
DOVER, OHIO

For more details circle NED-6038 on enclosed inquiry slip

SIX-INCH PROJECTION LENS for use with optical comparators

Direct overall inspection of wide variety of relatively large objects can be achieved with this five magnification, 6-in. aperture and 12-in. focal clearance projection lens. Typical applications include inspection of cams, templates, air foil sections and cutters. Contour of any object which falls within 6-in. circle can be projected in its entirety onto 30-in. receiving screen for measurement or direct comparison. Lens is intended for use with company's optical comparators. Made by **Jones & Lamson Machine Co.,** Dept. 710, 160 Clinton St., Springfield, Vt.

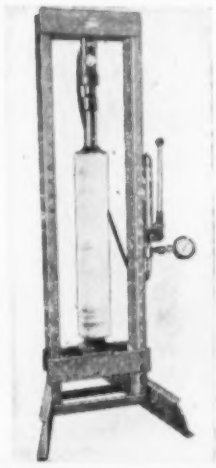
For more details circle NED-6039 on enclosed inquiry slip

ONE-INCH MICROMETER supplied with rounded anvil

Rounded anvil of this 1-in. micrometer makes it suitable for measuring wall thicknesses of bearings, tubing and various cylinders having up to 1-in. thick walls and down to ⅝-in. ID. Frame is ribbed and finished in smooth black enamel while thimble and sleeve have rust resistant satin chrome finish against which markings stand out clear and sharp. Graduations are quick reading with every thousandth numbered for quick errorproof reading. Spindle has one-piece construction with threads hardened, stabilized and ground from the solid. Made by **L. S. Starrett Co.,** Dept. ED, Athol, Mass.

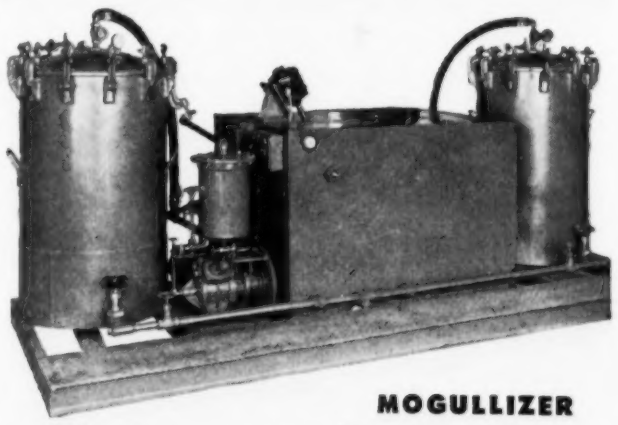
For more details circle NED-6040 on enclosed inquiry slip

HYDRAULIC ARBOR PRESS ram travel is 5 in.



Design of this model K hand-operated 20-ton hydraulic arbor press permits manually operated pump and ram to be removed from steel framework and used throughout plant as portable unit. Press can be used for mounting buffs on polishing spindles, broaching, assembling, straightening, bending, offsetting, flattening and blanking operations. Table is adjusted to any desired height. Ram travel is 5 in. and inside framework dimensions are 17¼x60 in. Made by **Clair Mfg. Co.,** 1003 S. Union St., Olean, N. Y.

For more details circle NED-6041 on enclosed inquiry slip



MOGULLIZER

Eliminates Leaky Castings

If your contract calls for impregnation, or if your production castings leak or weep and will not hold pressure, investigate our Mogullizing system—a high vacuum and pressure method of sealing castings. Models to meet your requirements.

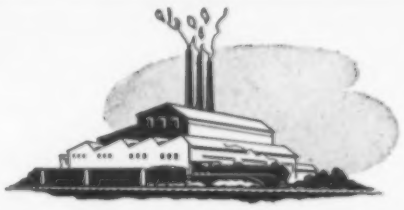
Any standard impregnating material can be used but for top efficiency we recommend our Mogul Cast Seal.

Prompt deliveries.

Write today for full details on the Mogullizing system.

METALLIZING COMPANY OF AMERICA
3520 W. Carroll Avenue • Chicago 24, Ill.

For more details circle NED-6042 on enclosed inquiry slip



INDUSTRIAL FLOORS
Engineered to your SPECIFIC NEEDS

EMERY • COMPOSITION • MASTIC

Scientifically formulated materials quickly installed by skilled Flash-Stone crews and supervision, with a minimum of down time, or materials only supplied. For any industrial job, from 100 to 100,000 square feet.

Write today for complete data

FLASH-STONE COMPANY
INCORPORATED
30 E. RITTENHOUSE ST., PHILADELPHIA 44, PA.

Industrial Flooring
ENGINEERS • MANUFACTURERS • CONTRACTORS

For more details circle NED-6043 on enclosed inquiry slip

MEET MY PAL, "THE BOXER!"

He weighs only a little over four pounds . . . even a 'cub' can operate this new International Retractable Anvil Staple Machine.

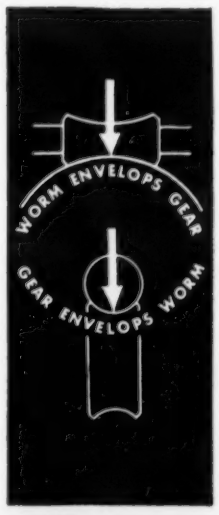
THE BOXER Staples filled cartons from the outside. A magazine holding 100 King-sized Staples, a new penetration and clinch control, and a new low price . . . these are some of the features which all add up to a neater, tighter, more uniform, more economical carton closure for you!

Write for a demonstration at no obligation!

INTERNATIONAL STAPLE & MACHINE COMPANY
HERRIN 2, ILL.
DISTRIBUTORS IN PRINCIPAL CITIES

For more details circle NED-6044 on enclosed inquiry slip

TAKE THE SHACKLES OFF PRODUCT IMPROVEMENT!
with "Double-Enveloping" Cone-Drive Gears



Double-Enveloping means more teeth IN CONTACT since the worm or pinion is wrapped around the gear (⅛ of all gear teeth are always in contact).

Double-Enveloping means MORE CONTACT PER TOOTH since the gear is wrapped around the worm or pinion (continuous FULL DEPTH area contact).

Double-Enveloping, therefore, means not only increased load capacity for any given center distance, but also an HYDRAULICALLY SMOOTH power flow.

Double-Enveloping gears and reducers are so simple to use, too, as shown in Bulletin #789-50. Ask for a copy.

CONE-DRIVE GEARS
Division, Michigan Tool Company
DOUBLE ENVELOPING GEAR SETS & SPEED REDUCERS
7171 E. McNichols Road • Detroit 13, Michigan

For more details circle NED-6045 on enclosed inquiry slip

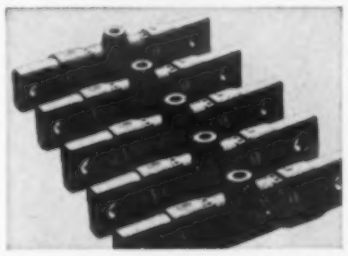
EACH AND EVERY
UNIVERSAL DRILL BUSHING
is tested for hardness which assures longer bushing life

145-A

UNIVERSAL ENGINEERING COMPANY
FRANKENMUTH 5, MICHIGAN

For more details circle NED-6046 on enclosed inquiry slip

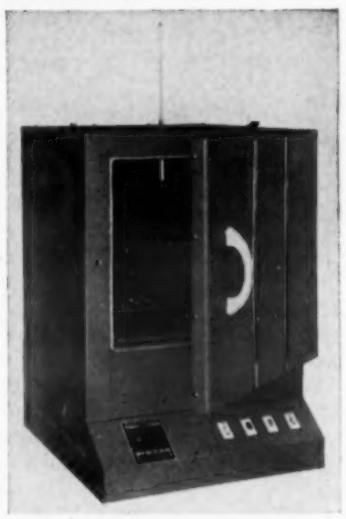
PNEUMATIC VIBRATORS
five sizes are available



Applicable to such uses as removing match plate patterns from sand molds, providing flow of powdered or granular materials from hoppers, feeding small parts for assembly and vibrating packaging tables, series 77 pneumatic vibrators are made in five sizes with piston diameters from ½ to 1¼ in. Cylinder liner is corrosionproof bronze alloy. Operation on 80 psi air line pressure delivers from 2200 to 6000 impacts per minute, depending upon piston diameter and air pressure. Single or double-end mounting can be employed. Vibration can be in line with direction of material flow or at 90-degree angle. Made by **SPO, Inc.,** 6474 Grand Division Ave., Cleveland 25, O.

For more details circle NED-6049 on enclosed inquiry slip

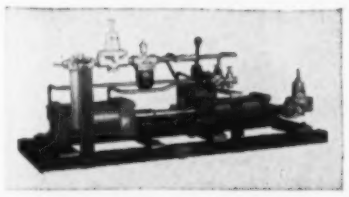
BAKING & DRYING OVENS
for general laboratory work



Features of line of utility ovens for drying, baking and preheating include dual bank of separately controlled Modella electric heating elements, temperature range from 38 to 180° C, heavy steel double wall construction, baked aluminum interior and automatic 6-hr timer (optional). All six sides are insulated with 1⅞-in. blankets of Fiberglas. Double wall door has explosionproof safety latch. Two removable shelves are adjustable to five positions. Red pilot light denotes oven operation, while clear shows automatic control operation. Models OV-460, OV-470 and OV-480 have heating chambers measuring 12 x 12 x 12 in., 16 x 14 x 16 in. and 20 x 16 x 20 in. respectively. Made by **Blue M Electric Co.,** 307 W. 69th St., Chicago 21N, Ill.

For more details circle NED-6050 on enclosed inquiry slip

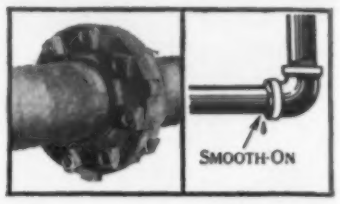
MEASURED LUBRICANT DISPENSER
fills equipment on production line



Accurately measured quantity of grease is delivered by this lubricant measuring device to steering gear housings at rate of 60 per hour as they proceed down assembly line. Unit is air actuated and consists of air line filter, hand operated valve and air actuated power cylinder linked to measuring cylinder. Made by **J. N. Fauver Co.,** 47 W. Hancock Ave., Detroit 1, Mich.

For more details circle NED-6051 on enclosed inquiry slip

HOW TO PREVENT LEAKS
at Flanged or Threaded Joints



Comes ready to use in 1-, 5-, and 25-lb. sizes. If your supply house hasn't Smooth-On No. 3, write us.

You can effectively and lastingly seal flanged and threaded joints, rivets and seams by applying Smooth-On No. 3. This soft metal cement flows into and fills all voids when making up a joint, besides serving to lubricate threads. It expands and contracts like the surrounding metal with changes in temperature so that it keeps the joint tight. It is impervious to steam, water, oil, gas, air and many chemicals, and withstands high pressures as well as high temperatures. And it makes a tight joint that is ready for immediate service, and may be taken apart when desired.

FREE Repair Handbook.
40 Pages of practical repairs to plant equipment, piping and structures, illustrated with 170 diagrams. Write for your free copy today.

SMOOTH-ON MFG. CO., Dept. 10
570 Communipaw Ave., Jersey City 4, N. J.

Do it with SMOOTH-ON

For more details circle NED-6053 on enclosed inquiry slip

SLASH DOWN-TIME

• **ASSEMBLED, UNCOUPLED** *in seconds!* Alignment checked in a fraction of usual time. Assembled by hand—uncoupled with a screw driver.

• **REDUCE PARTS PROBLEM.** No bolts, nuts, grids or discs to stock or replace. No special tools required.

• **REDUCE WEAR ON EQUIPMENT.** Cut coupling weight 50%, size 40%. Put less strain on shafts, bearings—cut breakdowns.

• **STRONGER, MORE DEPENDABLE.** One-piece smooth sleeve of forged steel carries the load—no bolts to shear.

WRITE FOR BULLETIN *and name of nearest Sier-Bath Representative!*

Bulletin gives installation photos, cost-cutting advantages, detailed plan drawings and specs for standard, vertical, mill motor and floating shaft types—sizes ⅞ to 6, HP 4 to 550. (Special sizes and types on request.)

Founded 1905 Member A. G. M. A.

Sier-Bath GEAR and PUMP CO., Inc.
9240 HUDSON BLVD., NORTH BERGEN, N. J.
Also Manufacturers of Precision Gears, and Screw and Gearex Rotary Pumps

For more details circle NED-6047 on enclosed inquiry slip

Save floor space, cut welding time for more production at lower cost...
use P&H AC Arc Welders with exclusive Dial-lectric remote control

Give yourself more room for your production needs. Mount your P&H Welder off the floor, out of the way.

Dial-lectric remote control lets your operator turn the heat on *at the work.* Turns his "walking time" into *welding* time for increased output.

Get these additional advantages: easy, quick-start arc; no arc blow; no moving parts to cause delays and maintenance expense.

P&H WELDING DIVISION
4537 W. National Ave.
Milwaukee 14, Wis.

HARNISCHFEGER CORPORATION 1911

P&H AC Welders are NEMA rated and available in a full range of sizes up to 625 amps. See your P&H representative for full details.

2257-A

For more details circle NED-6054 on enclosed inquiry slip

CORROSION RESISTANT
PULLEYS
FOR LOADS UP TO 200 LBS.

Thompson corrosion resistant pulleys are designed for trouble-free service on a wide range of chain, cable or rope operated equipment. Units can handle loads up to 200 lbs. and accommodate rope up to ½-inch in diameter.

Baked enamel-coated malleable iron housings closely shroud deeply grooved wheels so that operating chain or cable will not leave track. Molded composition wheels have excellent resistance to wear as well as acids, alkalies, oils and corrosive gases.

Thompson pulleys are available in corner, overhung and underhung models in hinged or fixed position types. In addition, seal-type pulleys are available for conduit enclosed runs.

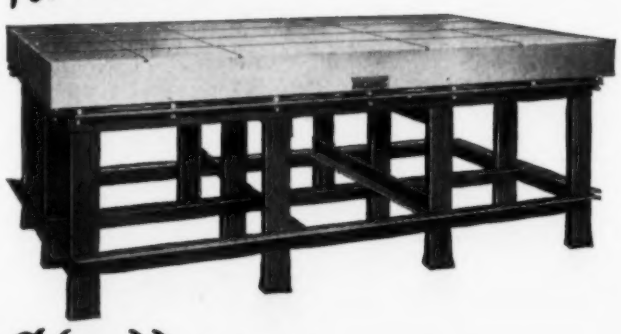
Write today for Catalog No. 50.

247-TE

THE THOMPSON ELECTRIC CO.
1138 Power Avenue, Cleveland 14, Ohio

For more details circle NED-6048 on enclosed inquiry slip

FOR WELDING OPERATIONS



Challenge SEMI-STEEL LAYOUT SURFACE PLATES

With Tee-Slots to facilitate assembling, locating, and welding . . . these six-inch plates on 30-inch steel stand provide a true, rigid surface — perfectly smooth and square. Plates can be grooved and keyed so that two or more may be assembled and mounted into one complete unit. For example, four 54x144" plates into one huge unit 144x216". Arc-welded stand has lock-leveling screws. Write for complete list of sizes and prices.

THE CHALLENGE MACHINERY CO.
GRAND HAVEN, MICHIGAN

For more details circle NED-6052 on enclosed inquiry slip

WRIGHT Again!

now...new
FRAME "B"
Speedway

● Rugged construction, yet light and portable, the new **Wright Frame "B" Speedway Electric Hoists** are designed for service in practically any location. Ideally balanced for hook suspension. ● Ball and roller bearings, alloy steel gears, swaged cable fittings, heavy duty motor, silver contact controls are some of the features which assure long life and low maintenance cost. Capacities from 250 lbs. to 1000 lbs.

Write for literature.

ACCO York, Pa., Chicago, Denver, Detroit, New York, Philadelphia, Pittsburgh, San Francisco, Bridgeport, Conn.

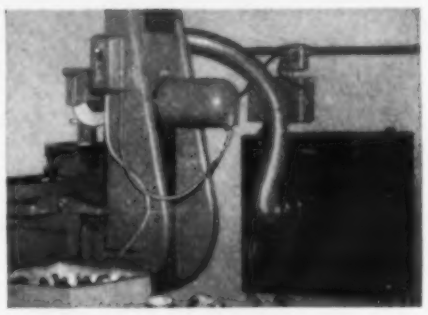
WRIGHT HOIST DIVISION
AMERICAN CHAIN & CABLE

TRADE MARK

In Business for Your Safety

For more details circle NED-6055 on enclosed inquiry slip

STOP DUSTS



INSTANTLY *with* DUSTKOP

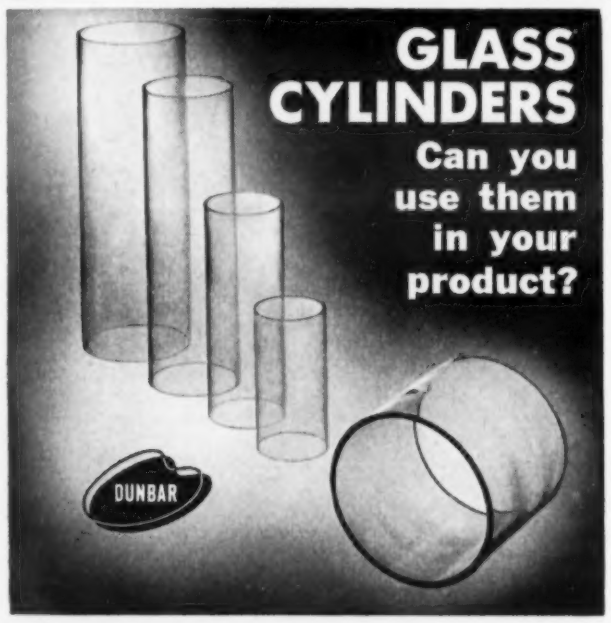
Available from stock of 22 standard models
300 cfm to 10,000 cfm

for: Surface Grinders, Tool and Cutter Grinders; Polishers and Buffers; Abrasive Belts and Discs; Woodworking and Plastic Industry Equipment . . . DUSTKOPS collect almost all kinds of industrial dusts.

Ask for Catalog 605-2. Describe dust problem for recommendation by return mail—no obligation.

AGET-DETROIT CO.
201 Main St. Ann Arbor, Michigan

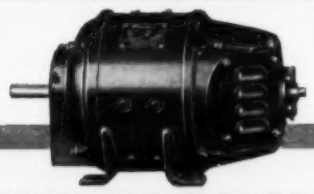
For more details circle NED-6056 on enclosed inquiry slip



For dispensers, merchandise displays, visible hoppers, lighting fixtures, sight feeders, meters, columns or any other applications, DUNBAR offers you a wide variety of cylinder sizes in economical quantities. Or we will fabricate blown glass cylinders to your specifications. We invite your inquiries. Write Dept. 73 for our Glass Cylinder catalogue No. C-51.

Dunbar Glass Corporation
DUNBAR, WEST VIRGINIA
NEW YORK CHICAGO LOS ANGELES

For more details circle NED-6057 on enclosed inquiry slip



ALL PEERLESS MOTORS ARE
"Peerless Registered"

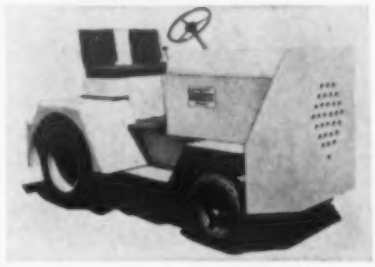
MORE than 90% of all Peerless Motors are custom manufactured to meet the specific operating requirements of the equipment with which they are to be used. So we "Peerless Register" every motor before shipment. The words "Peerless Registered" are a trademark, recorded in the U.S. Patent office. Only Peerless Motors can bear this phrase, and only Peerless Motors offer you this protection. This registration record is assurance to both you and your customer that the Peerless Motor has been properly designed for your equipment so as to give best possible performance and long, satisfactory service. And the registration record makes possible the quick identification of any Peerless Motor—anywhere.

THE PEERLESS ELECTRIC CO., WARREN, OHIO
Manufacturers of Quality Motors Since 1893
Single Phase • Polyphase • Direct Current • ¼ to 15 H.P.

Peerless-Electric MOTORS-FANS-BLOWERS

For more details circle NED-6058 on enclosed inquiry slip

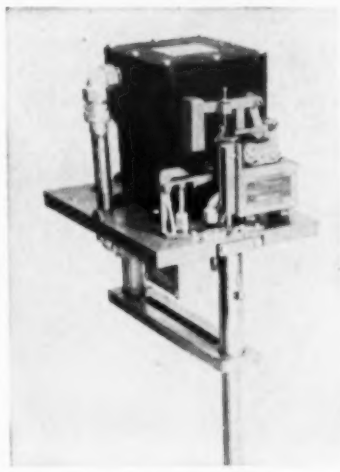
POWER INDUSTRIAL TRACTOR
tows 100-ton load on level ground



Compact size, 118-in. turning radius and 5000-lb drawbar pull are features of model 50 Unitow industrial tractor which is powered by International Harvester engine. Machine is only 66 in. high so that it will pass under low obstructions and through doorways. Dual pneumatic tractor-tread rear drive wheels and smaller pneumatic tire steering wheels assure smooth operation over rough pavement or yards. Made by **Hensel Green & Co.**, 7-9 S. Clinton St., Chicago 6, Ill.

For more details circle NED-6059 on enclosed inquiry slip

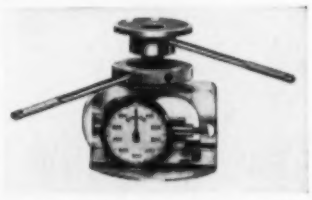
RECORDING VISCOSITY METER
unit measures, records, controls



Developed for explosion-proof applications, this Viscometer measuring element meets class 1 group requirements. It can be furnished with recorder to provide viscosity process control, either for manual operation with alarms or for completely automatic control. Recorder unit can be mounted locally or at any desired remote location. Measuring element is installed in vertical position with lower end immersed in liquid or solution whose viscosity is to be measured. This unit can be made of any material, with dimensions suitable for proposed installation. Models are available for solutions under pressure, vacuum or at atmospheric pressure and with solution viscosities from 1 to 200,000 centipoises. High and low viscosity alarm system is incorporated in all models. Made by **Norcross Corp.**, 247-B Newtonville Ave., Newton 58, Mass.

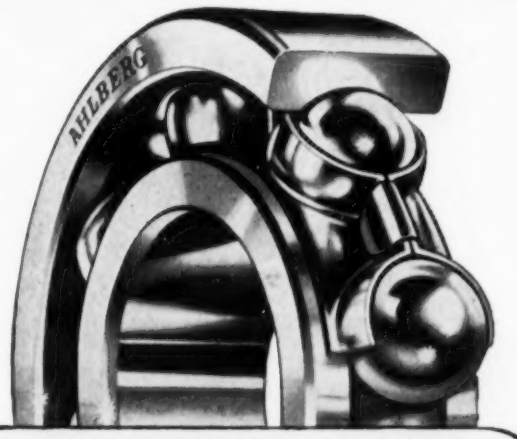
For more details circle NED-6060 on enclosed inquiry slip

JACKING ASSEMBLY ACCESSORY
for mechanical pressure gage



Compressive loads can be applied to Dillon mechanical pressure gage in a straight line by this jacking assembly accessory available in various sizes and shapes. Plated and hardened jacking assembly consists of finely threaded screw and large nut with equally spaced holes around edges. Handles screwed into these holes form means of applying load to gage. Made by **W. C. Dillon & Co.**, Dept. NED, 1421 S. Circle Ave., Forest Park, Ill.

For more details circle NED-6061 on enclosed inquiry slip



KEEPING AMERICA'S MACHINES
FIT FOR THE FIGHT!

Day by day, defense requirements are attaching greater impetus to improvements in machine design—both in military machines and production equipment—for the grueling tests ahead.

That's why NOW is a good time to redesign the equipment you make or use to include Ahlberg Precisioneered Bearings at every critical contact point . . . for minimum friction . . . maximum life . . . compact design.

Ahlberg Bearing Company, 3025 W. 47th St., Chicago 32, Illinois.

AHLBERG
PRECISIONEERED ANTI-FRICTION PRODUCTS SINCE 1908

For more details circle NED-6062 on enclosed inquiry slip

SPEEDS UP TOOL ROOM AND PRODUCTION LINE OPERATIONS

DREMEL *Electric* MOTO-TOOLS

MOTO-TOOL No. 2, with one emery wheel point . . . $16.50

MOTO-TOOL KIT No. 2, with 23 accessories, (high-speed steel cutters) and Model 2 Moto-Tool in natural finish hardwood case . . . $23.50

APPROX. 27,000 R.P.M.

Dremel Moto-Tools, widely used in industry for over 15 years, are World War II veterans—served in defense plants and military maintenance bases everywhere. Hundreds of operations — polishing and grinding dies, burring parts, sharpening cutters, etc.—performed in seconds *without* tearing down "set-ups". Moto-Tool is sturdily constructed for continuous duty. Weighs only 13 oz.—approx. 27,000 r.p.m.—dynamically balanced for vibrationless operation.

WRITE FOR INDUSTRIAL CATALOG

DREMEL MFG. CO. Dept. 541-H, RACINE, WIS.

For more details circle NED-6063 on enclosed inquiry slip

This versatile, simplified version of the Kodak Contour Projector will fit into *your* inspection and assembly line. With it you can handle a wide variety of precision jobs, large or small.

Fast, accurate, and needing no cumbersome hoods or curtains, it takes little skill to operate. Gauging takes less time, is more complete. And experience has shown that fixtures for optical inspection outlast mechanical gauges by as much as ten to one.

If your work calls for examination of surface details and deep recesses, or requires vertical projection, there are accessories to do the job. Lenses are available for magnifications up to 100×. All optical parts are dust-sealed—never need adjustment.

We'll be glad to show you how this adaptable new instrument will work on your problems. Write to Eastman Kodak Company, Industrial Optical Sales Division, Rochester 4, N. Y.

the KODAK CONTOUR PROJECTOR, MODEL 3

Distributed by ENGINEERS SPECIALTIES, Buffalo 9, N. Y.

*List price, F. O. B. Rochester, N. Y., magnification lenses and accessories extra. Price subject to change without notice.

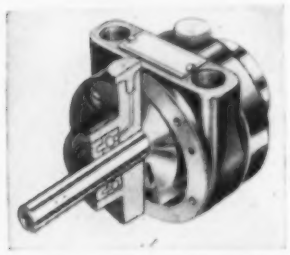
Kodak
TRADE-MARK

For more details circle NED-6064 on enclosed inquiry slip

NEW! PNEUMATIC HOIST with ROTARY AIR MOTOR

Capacities 250 lbs. to 1 Ton
Fast Lifting Speeds

- Worm Geared
- Compact—Light Weight
- Exceptionally Smooth Running
- Close, Sensitive Control



PT Hoist with monorail trolley; also made with upper suspension hook.

Pulseless, rotary air motor; no pistons, no reciprocating parts.

• *Write for PT Bulletin 708*

DETROIT HOIST & MACHINE CO.
8269 Morrow St., Detroit 11, Mich.

▲ For more details circle **NED-6066** on enclosed inquiry slip ▲

Step up production with time-saving Bostitch Metal Stitchers

A "SANDWICH" of synthetic rubber between two aluminum members of an airplane part is here fastened by a Bostitch Metal Stitcher.

Save time, work, money by using Bostitch Metal Stitchers to fasten aluminum, copper, plastics, cold rolled steel, or similar materials in any combination. These stitchers often cut assembly time 50% to 90%. They frequently replace cementing, spot welding, riveting, or bolting. Write now for new booklet telling the story of Metal Stitching. BOSTITCH, 744 Mechanic St., Westerly, Rhode Island.

BOSTITCH® fastens it better AND FASTER with wire

ALL TYPES OF MACHINES FOR APPLYING STAPLES
ALL TYPES OF STAPLES APPLIED BY MACHINES

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THIS FREE DISSTON BOOK TELLS YOU HOW!

This new Disston guide is a "must" reference book for every engineer, designer, and purchasing man. It gives you the story of Disston Custom Steel Parts: what they are; how they are made; typical products; how to order. And it blue-prints the facilities of the Disston Custom Parts Plant for handling intricate designs, exacting tolerances, and special heat treating . . . to individual specifications. We'll gladly send your copy on request—write on your letterhead or use the coupon.

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FIGHT WASTE

Please send me FREE, without obligation, your reference book on Disston Custom Steel Parts.

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CITY _____ ZONE _____ STATE _____
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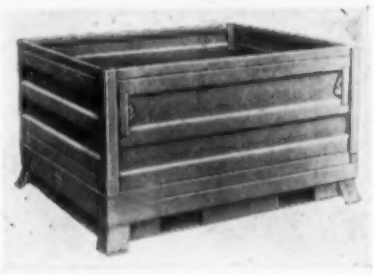
▲ For more details circle **NED-6068** on enclosed inquiry slip ▲

FORK LIFT-STACKER
operates from automobile battery

Capable of moving, lifting and stacking loads of up to 750 lb, this combination fork lift-stacker and hand truck with hydraulically elevated platform is operated from standard 6-v automobile battery. Maximum load is lifted to 55 in. in 6 seconds. Built-in charger can be plugged into any outlet. Truck has 18 x 21-in. platform as standard. Maneuverability is attained through large load wheels on back and swivel casters at front. Made by **Clark-Hopkins Equipment Corp.**, 1126 Spring Garden St., Philadelphia 23, Pa.

▲ For more details circle **NED-6069** on enclosed inquiry slip ▲

MATERIALS HANDLING BOX
lift truck dumps collapsible unit



Only 20 seconds are required to fold or erect the B-50F materials handling box which can be dumped by lift truck with revolving apron. Phil-Box is equipped with reinforced guide holes on all sides for entry of truck forks. It has capacity of 5000 lbs. and folds to collapsed height of less than 10 in. Lock with safety catch holds box in erected position. Leg design provides stability in stacking. Made by **Phillips Mine & Mill Supply Co.**, 2303 Jane St., Pittsburgh 3, Pa.

▲ For more details circle **NED-6070** on enclosed inquiry slip ▲

ODOR DISPELLING LAMP
small 3½-w bulb creates ozone

Odor molecules in air are dissipated by ultraviolet radiations of special wavelength which transform oxygen around Odorout bulb into ozone, an air purifier. Walnut-sized, 3½-watt lamp, when burned in special wall fixture, destroys smoking, dampness and other odors. Bulb alone costs $1.30 and lasts 6 months when operated 24 hours a day. Eight manufacturers produce fixtures using one to four lamps in each unit. Bulb made by **Westinghouse Electric Corp.**, Lamp Div., Bloomfield, N. J.

▲ For more details circle **NED-6071** on enclosed inquiry slip ▲

Bin Stuck Lately?

Don't ruin your Bins

Vibrate them with a TYPE F CLEVELAND AIR VIBRATOR

- Steel Chips . . . Dry Colors . . . Concrete . . . Fertilizer . . . Sand . . . Coal . . . Soap . . . Sawdust . . . Vegetables . . . Chipped Ice . . . Meat . . . Candy . . . Wood Chips . . .

Or any other 'granulars' free up fast with a Type F Cleveland AIR Vibrator. Eliminate plugged or arched conditions. Write for Catalog No. 105 for complete details.

THE CLEVELAND VIBRATOR COMPANY

2745 Clinton Ave. • Cleveland 13, Ohio

▲ For more details circle **NED-6072** on enclosed inquiry slip ▲

Conveyors for SHELL HANDLING

Shell production on schedule may be dependent on rapid movement from one operation to the next. Utilize the special conveyor systems devised for shell plants. Let Alvey assist you in your production transportation.

Write:

ALVEY Engineered... PACKAGE CONVEYING

ALVEY CONVEYOR MFG. CO.
P. O. BOX 3031
St. Louis 24, Missouri Sales Offices in Principal Cities

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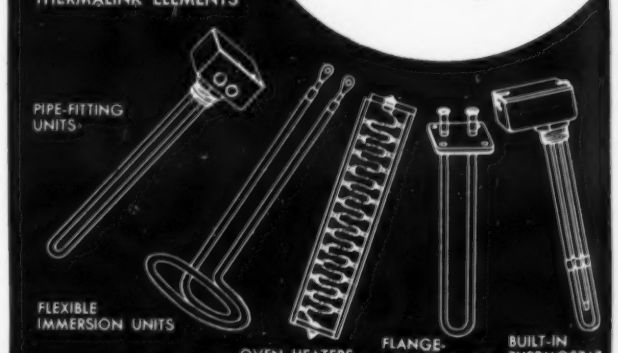
THERMALINK Electric HEATING ELEMENTS

IMPROVE YOUR ELECTRICALLY HEATED PRODUCTS AND EQUIPMENT WITH THERMALINK ELEMENTS

OVER 600 STANDARD MODELS & TYPES



SPECIALISTS IN CORROSION-RESISTANT IMMERSION HEATERS

Write Dept. N for Literature

ELECTRO-THERM INC.
8024 GEORGIA AVE., SILVER SPRING, MD.

▲ For more details circle **NED-6074** on enclosed inquiry slip ▲

Save Time...Labor...Material with BEVERLY metal cutting SHEARS

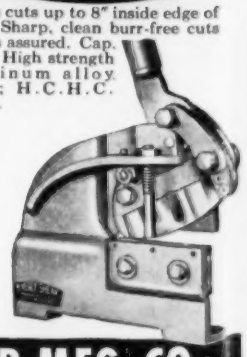
throatless SHEARS

Make any cut—straight, irregular, curved. Exclusive design permits turning work any direction while cutting. 4 models—cap. to 3/16".

Inside SLOTTER

Makes cuts up to 8" inside edge of sheet. Sharp, clean burr-free cuts always assured. Cap. 16 ga. High strength aluminum alloy body; H.C.H.C. blades.

slitting SHEAR



New "SS" Series—easier cutting with compounded linkage. 3 models—cap. to ⅛"; trimming capacity to ⅛" mild.

See your Beverly Distributor. Write for FREE illustrated Bulletin.

Beverly SHEAR MFG. CO.
3016 W. 111th STREET • CHICAGO 43, ILLINOIS

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NEW! 200 PAGE CATALOG

STATIONARY or PORTABLE
D.C. ARC WELDER
For light or heavy industrial work. Delivers 300 Amps., continuous — or 350 to 400 Amps., intermittent. Designed to weld continuously for hours... This unit is built around a rugged, heavy duty, aircraft type generator and comes complete with Pulley reactor, output controls, Hi-Lo switches & rheostat mounted on sturdy steel frame. Operates on 15 H.P. for maximum output. Gas or electric motor. 97.50

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Our latest and biggest CATALOG of NEW and SURPLUS BARGAINS. Thousands of items at UNHEARD OF LOW PRICES! SAVINGS UP TO 85% in Hand & Power Tools, Electrical Supplies, Industrial Machinery, Gas and Electric Motors, Winches, Hoists, Machine Tools, Gauges, Welding Equipment, Pneumatic & Air Tools, Raw Stocks, Aluminum, Brass, Copper, & Steel in Sheets, Bar, Rods, Tube & Extrusions, Nuts, Bolts, Rivets, Screws, Wire, Cable and a Huge Stock of HYDRAULIC SUPPLIES including Cylinders, Valves, Pumps, Motors, Fittings, Tubing, etc. While these items last we will continue to sell them at typical low Pulley Prices. Write for your copy of this Bargain Packed Catalog TODAY!

PALLEY SPECIALS on HYDRAULIC PUMPS & CYLINDERS

HYDRAULIC PUMP or MOTOR GEROTER TYPE
Logan Gerotor type. For operating hydraulic systems on trucks, tractors, etc. Delivers 8 GPM at 1200 RPM at 1000 PSI with 5 HP. Can also be used as Hydraulic fluid motor. 3/8" stand pipe ports. ½" splined shaft for pulley or direct attachment. 5½" dia., 7" long. Used but condition guaranteed. 19.50

Special! HYDRAULIC CYLINDER
Gives 20,000 lbs. thrust (push or pull) using 1500 PSI line pressure as obtained from our hydraulic pumps. Will produce up to 40,000 lbs. thrust with 3000 PSI. Can also be used on low pressure air systems. 4" bore, 18" stroke; 30½" length. Ideal for road-farm-shop machinery. 29.95

P-3 STRATO POWER PUMP
With built-in variable flow control valve in head. Positive displacement piston type. Displacement capacity. 2 gal. per min. at 1500 RPM at 1250 PSI. Pressure limit 1250 PSI continuous. 1400 PSI for 15 sec. Operates at 3750 RPM, intermittent max. 4500 RPM. Rotates either direction without adjustment... 19.50

No. 3 HYDRAULIC CYLINDER
Double action. Bore is 1" — Shaft ½". Has stroke of 2½" to 4". Stroke can be adjusted with internal sleeve stops. Overall length is 8½". Will take 1500 lbs. continuous duty. 3000 lbs. intermittent. Will lift or push up to 1100 lbs. 5.75

P-4 VICKERS ANGLE PUMP
Positive displacement type, angle piston. Displaces .507 cu. in. per revolution. Has capacity of 6 gal. per min. at 3000 RPM at 1500 PSI., continuous, 1875 for 15 sec. Operating speed of 3750 RPM, intermittent maximum, 4500 RPM. Rotates to the right only. 19.49

V-28 4 WAY VALVE
Poppet type. Valve shuts off at neutral position. Has 3/8" AC tube parts... 9/16 — 20 thread. Will stand 1500 PSI. 6.75

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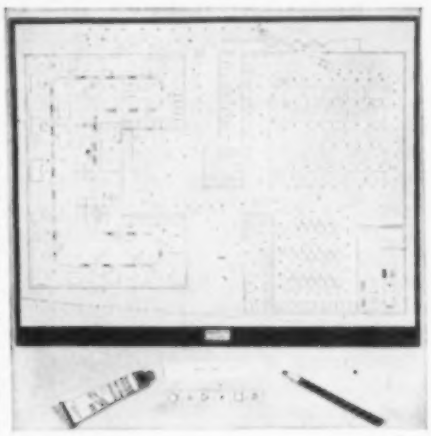
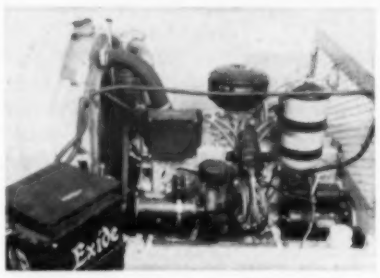
PRODUCTION PLANNING KIT aids studying materials handling



Materials handling planning unit aids in quick analysis of current handling practices, their effectiveness and ways to correct their defects. Kit comprises tools and planning aids for making material handling flow diagrams in manufacturing plants, warehouses and transportation terminals. It includes sturdy plastic-surface planning boards with ¼-in. ruled squares, over 900 accurately scaled templates representing personnel and equipment, colored strips for indicating boundaries of buildings, dual-station ruler and plastic marking pencil. Available in three sizes for 80 x 112, 144 x 192 and 192 x 288-ft maximum floor areas, unit lists for $10, $17.50 and $27.50, respectively. Made by **Triometric, Inc.**, Dept. P, 711 Penn Ave., Pittsburgh 22, Pa.

For more details circle **NED-6078** on enclosed inquiry slip

GASOLINE FORK TRUCK enclosed-spark unit developed for operation in hazardous areas



Of enclosed - spark design, Yale gasoline fork trucks provide safe operation in gas and dust-laden areas. Trucks are designated as Underwriters' Laboratories type GS. Protection is accomplished by shielding electrical equipment against sparking, providing water type exhaust manifold and water-cooled muffler and using static conductive tires.

Fuel tank is heavy welded steel, surrounded by strong structural members as protection against rupture. Filler cap which seals automatically is shielded from engine compartment. Other safety features include copper fuel lines, metal gasoline filter bowl, up-draft carburetor with leak-tight metal air horn connected directly to air cleaner of backfire arrestor type, completely enclosed wiring and spark plugs, and spark-enclosed generator, starting motor and relays. Made by **Yale & Towne Mfg. Co.**, Philadelphia Div., Dept. M-1, Roosevelt Blvd. & Haldeman Ave., Philadelphia 15, Pa.

For more details circle **NED-6079** on enclosed inquiry slip

DO YOU KNOW? The first issue of "Industrial Ventilation", a periodical devoted to new developments in industrial dust and fume control, has been published. It will be sent regularly to industrial executives by American Wheelabrator & Equipment Corp., 508 S. Byrkit St., Mishawaka, Ind.

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LEAKAGE • SHORTS • BREAKDOWN
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HIGH POTENTIAL TESTING INSTRUMENTS

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The toughest, tightest gripping all-around cloth tape ever made. MYSTIK Tape No. 5800C handles protective problems under every condition—water, salt spray, abrasion. Does numerous holding, sealing, identifying jobs. Made to conform with government spec. JAN-P-127, Type I, Grade B.

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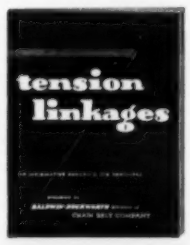
For more details circle NED-6083 on enclosed inquiry slip

machine designers
this informative engineering handbook can help you!



If you design lift trucks, hoists, counterweight suspensions, controls, or any type of equipment where you must transmit pull or lift, this informative, free engineering handbook on tension linkages will help you!

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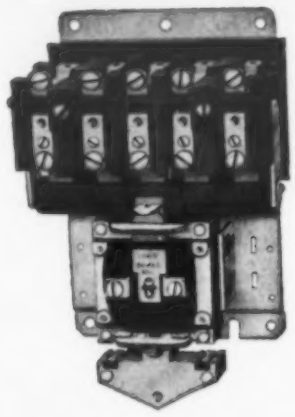
For more details circle NED-6084 on enclosed inquiry slip

NEW! Size O A-C Solenoid Contactor

with Multi-Pole Construction



Now Ward Leonard extends its line of improved solenoid contactors into the 15 ampere range—for fast, positive, consistent operation on load and control circuits.

Size O a-c solenoid contactors come with as many as 5 poles. Double break silver contacts may be interchanged to form normally open or normally closed contacts as desired.

Operating coils are interchangeable with Size 1 contactor coils. Available with d-c "power plants."

Write for Bulletin 4458. WARD LEONARD ELECTRIC CO., 51 South Street, Mount Vernon, N.Y. Offices in principal cities of U. S. and Canada.

WARD LEONARD ELECTRIC CO.

Result-Engineered Controls Since 1892

RESISTORS • RHEOSTATS • RELAYS • CONTROL DEVICES

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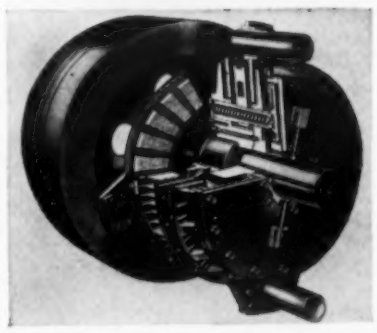
PEDESTAL PRESS for use with hydraulic puller

Base of this model OTC Y-102 pedestal press for use with hydraulic puller measures 20 x 21 in., making it applicable to production, assembly line or maintenance operations. Press is designed to utilize hand-operated Power-Twin 17½-ton ram. Open-throat press plate provides almost unlimited vertical adjustment, making it useful for pulling wheels, pulleys, collars, gears and bearings. Made by **Owatonna Tool Co.**, 436 Cedar St., Owatonna, Minn.

▲ For more details circle **NED-6087** on enclosed inquiry slip ▲

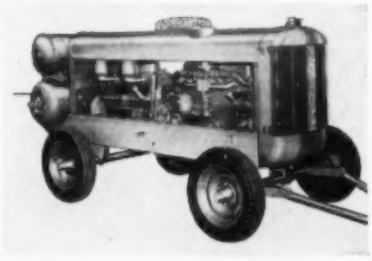
AIR FRICTION CLUTCH for round-the-clock high speed use



Movement between full engagement and braking on this high speed air friction clutch is only a fraction of an inch. Designed for 24-hour operation, unit has self-induced ventilation which assures rapid heat dissipation. Friction plates are arranged to assist centrifugal blower action. Cycle-welding of linings to plates encourages rapid heat transfer. Plates are arranged to compensate for wear automatically. Clutch and brake friction disks "float" quietly in mountings and align automatically. All friction linings are mounted on removable insert plates for quick replacement. Clutch is made in several sizes for mounting on new medium and large capacity Bliss mechanical presses as well as older type Bliss presses. Made by **E. W. Bliss Co.**, 13-76 Raff Rd. S.W., Canton, O.

▲ For more details circle **NED-6088** on enclosed inquiry slip ▲

HEAVY DUTY AIR COMPRESSOR delivers 210 cu ft per minute



Designed for continuous heavy duty service, model 210 Unistage air compressor consists of six-cylinder engine and six-cylinder compressor unit. Service is simplified because 90 per cent of the engine parts are interchangeable with those of compressor. Additional features are electric starting, automatic speed control, cam-operated intake valves and dual fan belts. Made by **Schramm Inc.**, Dept. NED, West Chester, Pa.

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Many patented constructions provide strongest possible shaft setting. Your choice of many different types and materials—wood, rubber, iron, brass, stainless steel plastic, etc. Whatever your roll problem, put it up to Rodney Hunt.

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Have you too a materials-handling problem?

Style 20 nesting type

LANE CANVAS BASKETS

are sturdy-splinterless-light

Ask for Cat. No. 1-N

Mfrd. by

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a general-purpose conveyor for your many special jobs!

It is often too costly to install special equipment for a specific handling job. Many times, however, a Handy-Handler can save money and provide the necessary speed-up . . . at a *very low* initial cost (approx. $300 with power unit). Strong, sturdy and light in weight, the Handy-Handler can be easily moved between a variety of jobs. Also available with dolly.

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use it to move . . .

Anthracite Ash • Bones • Candy • Carbon Black • Copperas • Cotton Seed • Cotton Motes • Feeds • Fertilizers • Filter Clay • Ice • Iron Oxide • Kaolin • Meat Scraps • Peat • Phosphates • Pigments • Popcorn • Poultry Litter • Small Castings • Small Packages • Small Stampings • Salt • Sawdust • Sewage • Sludge • Soap Powders • Soda Ash • Starch Powders • Stoker Coal • Urea • Crystals • Wetting Agents

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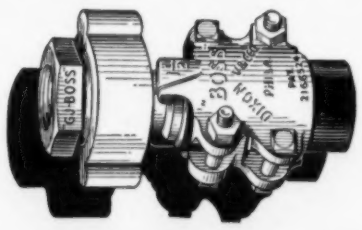

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GROUND JOINT FEMALE COUPLING, STYLE X-34

For Steam, Air, Water, Hydraulic Hose — High or Low Pressure

Soft-to-hard metal seal provides leakproof, trouble-free connection. Parts — malleable iron or steel, rustproofed. Furnished with "BOSS" Offset and Interlocking Clamps. Deep, smooth corrugations give an excellent gripping surface for hose when clamp pressure is applied. Sizes ¼" to 6".

From Your Hose Supplier or Industrial Distributor

DIXON VALVE & COUPLING CO.

PRODUCERS OF *The Quality Line* COUPLINGS • NIPPLES • MENDERS • CLAMPS

"BOSS" "GJ-BOSS" "DIXON" "KING" "AIR KING" "DIX-LOCK"

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—of "Standard's" UNBRAKO *Standards.*

Write on your business letterhead, today.

SOCKET UNBRAKO® SCREWS

"STANDARD" RECOMMENDS *STANDARDS*

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FLOAT BULLETIN 650

Complete Data on Welded Floats: Diagrams, Tables, Formulae for Calculation of Buoyancies

The booklet is a standard reference for specifiers of welded floats. Nicholson furnishes any type: for external or internal pressures; in stainless steel, Monel, chromium, cadmium or copper-plated steel. Sizes, 2" to 14" diam., press. to 4800 lbs.; standard or special connections. Quick delivery on many sizes and shapes. Nicholson floats are standard with hundreds of manufacturers.

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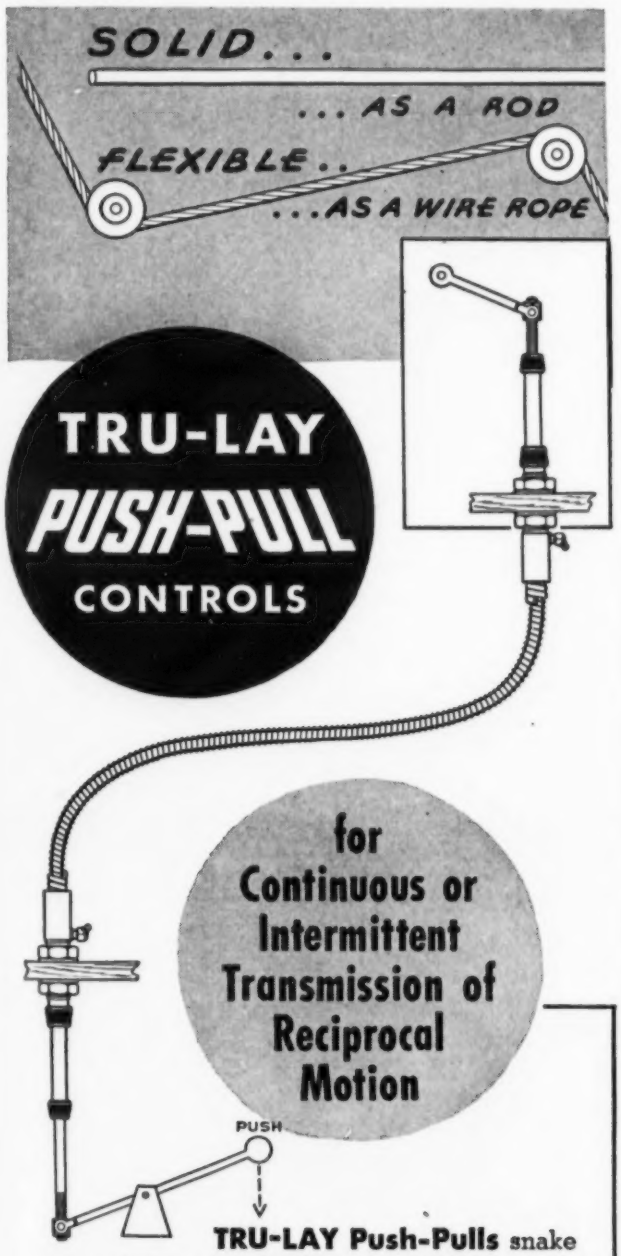

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ELECTRIC SOLDER POT
for brazing or wire-tinning work

Operating on 115-v ac, Hi-Temp dipping pot facilitates brazing of Formvar or enamel insulated wires without prestripping or cleaning. It is designed for high temperature silver solder or 50-50 lead solder dipping applications. Crack-proof crucible is employed in this unit which has manual rheostat for temperature control. Models can be supplied for operation on other voltages. Made by **Tartak-Stolle Electronics, Inc.**, Industrial Equipment Div., 3970 S. Grand Ave., Los Angeles 37, Calif.

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POWER SWEEPER
attachment fits fork lift trucks

Yard Bird power sweeper attaches to any fork lift truck of 1500 lb capacity or over. Operating indoors and out, sweeper can clean up to 80,000 sq ft per hour with truck moving at 5 mph. It has self-contained spray system and 6.8 hp gasoline engine which drives brush at 164 rpm. Dirt is deposited in easily dumped full-width dust pan. By entering truck forks at angle, sweeper can be used for snow removal. Attachment to trucks requires about 3 minutes and no tools. Made by **Little Giant Products, Inc.**, Dept. NE, 1530 N. Adams St., Peoria 3, Ill.

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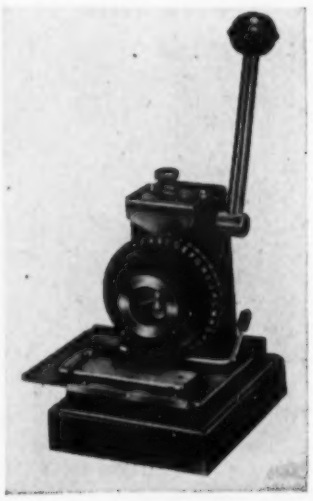
NAMEPLATE PRESS
has automatic letter spacing



When used to make machinery detail plates, tool checks, directory panels, name or other identification plates, this press automatically spaces uniform characters on metal or plastic plates up to 2 x 3 in. Hardened steel dial has 40 characters, including all letters and numbers. Depth of impression can be adjusted. Machine is nickel plated throughout. Made by **Clearview Co.**, Dept. NED, 345 E. Houston St., New York 2, N. Y.

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10 WATT SOLENOIDS—Little power needed because air does the work. No relays, no transformers required. Operates directly off regular 110 or 220 v. circuits. Solenoids continuously rated.

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FOR TOOL ROOM AND PRODUCTION

FOR LESS THAN $150

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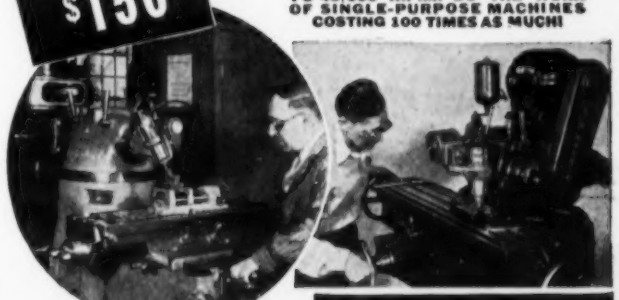

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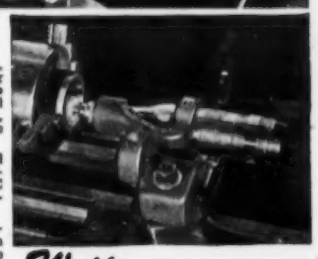
ATTACHABLE COOLFLEX SHAFT (optional). Quickly attached for bench work and handtool applications. Same speeds, same precision quill as in PRECISE GRINDER-MILLERS.



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PRECISE GRINDER-MILLERS

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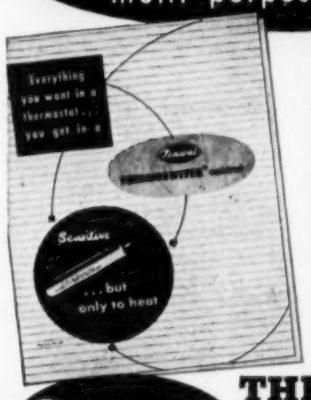
of free booklet on unique, multi-purpose thermostat



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The Precision, Multi-Purpose, Thermostat Control
SENSITIVE...*but only to heat*

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THE NATIONAL SCREW & MFG. CO.
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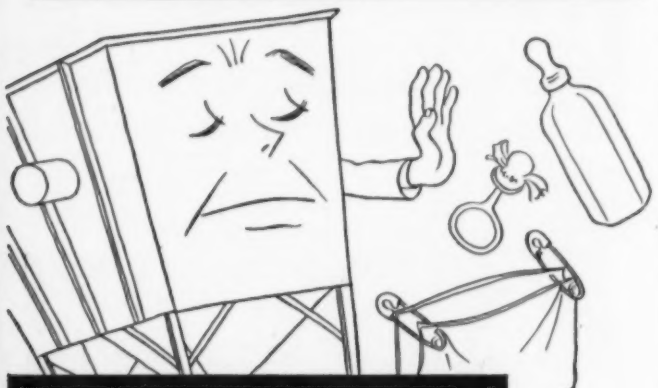

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the DUST COLLECTOR
you don't have to Baby!

Most everyone has some machinery that has to be babied. You know the kind I'm talking about. It requires constant attention to keep it running. That's why it's so refreshing to find a dust collector that's as trouble-free as the Dustube.

Users will usually tell you: "We have had absolutely no trouble with the Dustube—it would be easy to forget we had it except we can't overlook the complete absence of dust in our plant." Me, I've got to know why things are the way they are, so I made a complete examination of the Dustube. I found where the dust-laden air entered the collector and traced its flow through the cloth filtering tubes.

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You can take it from me. The Dustube Collector is one of the most trouble-free machines I have ever seen. But, why don't you see for yourself. There are thousands of Dustubes in service in every type of industry. Write today for complete information.

Sincerely,

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- BETTER DUST REMOVAL
- POWER SAVINGS
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dustube® COLLECTORS

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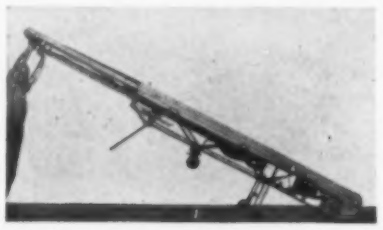
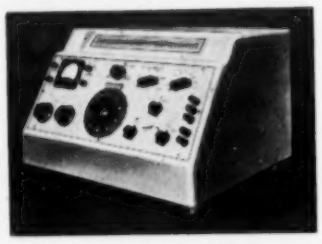
PORTABLE CONVEYOR
length adjusts from 10 to 17½ ft



Light enough to be moved and operated by one man, Adjustoveyor is capable of operating in many different positions and lengths. It is counterbalanced for easy moving around plant. Design enables it to carry total weight of 850 lb and maximum unit weight of 300 lb. It measures 10 ft closed and 17 ft 6 in. extended. Operation can be at any length within this range. Stacking can be performed to height of 10 ft at maximum angle of 30 degrees. Standard equipment includes 14-in. wide rough top rubber belt on 18½-in. bed. The 625-lb unit is driven by ½ or ¾-hp motor. Made by **Stewart-Glapat Corp.**, 1639-A Moxahala Ave., Zanesville, O.

▲ For more details circle NED-6107 on enclosed inquiry slip ▲

POLAROGRAPHIC INSTRUMENT
simplifies analysis of chemicals



Usable for research as well as routine analysis of chemical compounds, this polarographic instrument is simple and fast operating. For production checking operations, equipment can be handled by less skilled workers after testing routine has been established by chemist. Typical of the many industrial uses is checking rubber compounds for the presence of lead and zinc. Built-in standard cell permits checking accuracy of instrument while it is in use. Made by Patwin Instruments Div., Patent Button Co. and distributed by **General Scientific Equipment Co.**, 3013 Dixwell Ave., Hamden, 14, Conn.

▲ For more details circle NED-6108 on enclosed inquiry slip ▲

DUST HOOD
used with or without respirator

Useful when working in atmospheres containing heavy concentrations of irritating dust, this lightweight dust hood can be used with or without respirator. Interchangeable frames and windows accommodate respirator. Hood is of lightweight cotton duck. Comfortable fit is obtained by adjustable neck and underarm web straps. Windows are made of 0.040-in. nonflammable acetate sheeting and are replaceable without removing frame of semirigid fiber. Frame is removed by snap fasteners for cleaning. Made by **Willson Products, Inc.**, 207 Thorn St., Reading, Pa.

▲ For more details circle NED-6109 on enclosed inquiry slip ▲

The World's Most Efficient
CONCRETE DRILL

29 Std. Sizes — Wide Variety in Drill Shanks

TILDEN ROTARY KONKRETE-KORE DRILLS

Revolutionary Tilden Drills available in 29 standard sizes, from 3/16" to 4". Larger sizes to 8" in diameter and lengths up to 36" made to special order. A variety of shank lengths and fittings make these drills versatile and efficient.

TOP PERFORMANCE: 200 inches of concrete drilled before resharpening—drills glass, flat steel and rock in concrete—drills up to 6 inches per minute—makes straight clean holes—uses ordinary electric drills for fast, quiet cutting action.

U. S. Pat. No. 2506474

Write now for illustrated catalog on Konkrete Kore Drills—the world's most efficient.

Tilden Tool MANUFACTURING COMPANY
Branch Offices: 209 LOS MOLINOS • SAN CLEMENTE, CALIF.
1995 N. Fair Oaks, Pasadena 3, Calif. • 144 W. Washington Blvd., Chicago 7, Ill.

▲ For more details circle NED-6110 on enclosed inquiry slip ▲

where there's heat...

. . . there's a need for instant, accurate reading of surface temperatures to prevent costly damage to materials in process and equipment. The handy Alnor Pyrocon is unequaled for quick, accurate reading of surface temperatures of molds, revolving rolls, bearings, steam traps, plastics, metals and many other materials. It's a well balanced, handy instrument that will stand heavy use, yet perform with laboratory precision. A wide selection of thermocouples and extension arm assures its adaption to your type of service. Send for Bulletin No. 4257. Illinois Testing Laboratories, Inc., Room 529, 420 N. La Salle Street, Chicago 10, Illinois.

send for bulletin now!

Alnor
PRECISION INSTRUMENTS FOR EVERY INDUSTRY

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Efficient Materials-Handling at the "Grass Roots" level with

Colson® CASTERS

Model 4-807-65 Swivel fork caster—ideal for medium weight industrial equipment

● No matter how modern or streamlined your truck fleet, it's no better than the wheels and casters it rolls on. Surprising—how a few dollars spent for Colson casters can increase the efficiency of hundreds or thousands of dollars worth of rolling stock. There's a Colson for every need—from light casters for office furniture to heavy-duty jobs of 1500 pounds capacity.

Colson also manufactures a wide range of trucks—hand trucks, platform trucks, box trucks, drum and barrel trucks and Lift-Jack Systems. Write us or consult your phone book (under "Casters" or "Trucks—Industrial") for the Colson representative near you.

Write today for free 68 Page Caster Catalog

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ELYRIA, OHIO
CASTERS • • LIFT JACK SYSTEMS • • INDUSTRIAL TRUCKS

▲ For more details circle NED-6112 on enclosed inquiry slip ▲

FASTER, EASIER DRAFTING

40% faster—actual tests prove

When you eliminate time wasted in picking up and laying down tools, you naturally draft faster, easier. Up to 40% faster if you're using a Bruning machine (as proved by actual tests).

Your Bruning drafter combines triangles, T-square, straightedge, protractor and scales, all in one precision instrument. Waste motions are cut to the bone — accuracy becomes both easy and *automatic*.

Other exclusive Bruning features naturally contribute: Touch Control Indexing, for example; or our "Equipoise" mechanism (the best gravity compensator ever devised for inclined board use). Get the details in our interesting descriptive booklet.

SEND TODAY for our free 20-page booklet A-1055. Use it as your standard of drafting machine values.

BRUNING
CHARLES BRUNING COMPANY, INC.
Dept. J-81, 100 Reade Street, New York 13, New York

▲ For more details circle NED-6113 on enclosed inquiry slip ▲

Leather Crimping Machine *Air-Powered* by NOPAK Cylinder

The crimping machine pictured was developed by Western Supplies Co. of St. Louis. It "makes shoes fit better" because it preforms leather upper sections under heat and pressure, so that they can be subsequently drawn snugly against the lasts.

NOPAK Air Cylinder Power was chosen to reduce operator fatigue and increase production . . . to utilize controlled line pressure over the full range of crimping operations . . . to eliminate working parts . . . and because NOPAK mounting characteristics were best fitted to the machine. A study of the cylinder's construction indicated there was "practically nothing to wear out." It was also found to meet required standards at a comparatively low price.

REAR VIEW shows NOPAK Model "E", 4" x 8" stroke Cylinder, with self-regulating cushion at both ends.

GALLAND-HENNING MFG. CO.
2755 S. 31st Street • Milwaukee 46, Wis.

Representatives in Principal Cities.

Write for Bulletin SW-1 or refer to Sweet's File for Product Designers.

NOPAK VALVES AND CYLINDERS
DESIGNED for AIR and HYDRAULIC SERVICE

A 5958-1/9AA

For more details circle NED-6114 on enclosed inquiry slip

How one Pittsburgh Brush*

POLISHES 10,000 HEATING UNITS

** An actual case history from The Edwin L. Wiegand Company, producers of CHROMALOX Heating Units.*

WHEN this company needed a way to take the ragged edges off heating units economically and *fast*, they turned to sturdy, tough Pittsburgh Brushes for the answer. The 6" Pittsburgh steel wire brushes like that shown above polish 10,000 heating units during their life.

LET PITTSBURGH ENGINEERS SOLVE YOUR BRUSH PROBLEMS

Pittsburgh's complete line of brushes of every type, for every purpose, will provide a practical, economical solution of any brush problem you might have. Drop us a line on your company letterhead for a copy of our new booklet that shows, through actual case histories, how Pittsburgh can help cut your brushing operation costs. Address: PITTSBURGH PLATE GLASS COMPANY, *Brush Div.*, Dept. M-4, 3221 Frederick Ave., Baltimore 29, Md.

PITTSBURGH
Power Driven **BRUSHES**
BRUSHES • PAINT • GLASS • PLASTICS
PITTSBURGH PLATE GLASS COMPANY

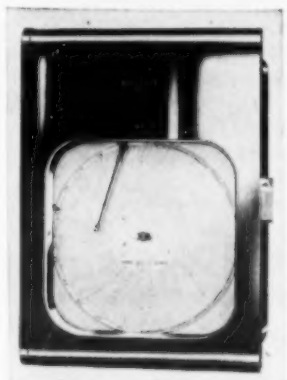
For more details circle NED-6115 on enclosed inquiry slip

FOUR-STEP LADDER for use with stock carts

Especially designed for use with stock carts this four-step Stockart Safety-Step ladder has hangers that are adjustable for push bar heights from 30 to 38 in. and is mounted on ball bearing casters for easy movement without lifting. When the weight of the stock clerk is on the ladder, casters automatically retract, putting two rubber tipped legs into firm contact with floor. Ladder is of all-steel construction with ¾-in. steel tubing frame and expanded nonslip steps. Made by **Ballymore Co.**, 139 Pennsylvania Ave., Wayne 3, Pa.

For more details circle NED-6116 on enclosed inquiry slip

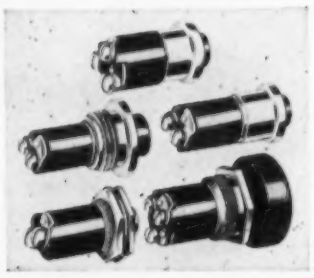
RUNNING-TIME RECORDER charts production machine "on" time



Total machine operating time is easily and accurately determined to within a few seconds with this running-time recorder. Record chart shows "on" time in hours, minutes and seconds for given periods as well as "time off" periods and when they occur. Running-time readings are magnified for quick computation. Models are available for wall, flush-panel or portable use. Made by **Bristol Co.**, 30 Bristol Rd., Waterbury 20, Conn.

For more details circle NED-6117 on enclosed inquiry slip

ELECTRIC PUSHBUTTONS designed for aircraft applications



Recently reinstated, line of aircraft pushbuttons includes two-point two-terminal type with normally open or normally closed contacts and three-point three-terminal type with normally open contacts in variety of flange and mounting arrangements. Latter can be provided with identification disks under Lucite cap. Units withstand vibration at frequencies to 55 cycles and acceleration up to 10 g. Full rating of 15 amp inductive load at 30 v dc is possible at 40,000-ft elevation. They operate in temperature range from −65 to 160° F. Made by **Square D Co.**, 6060 Rivard St., Detroit 11, Mich.

For more details circle NED-6118 on enclosed inquiry slip

STOP LEAKS

Leaks in concrete walls can be stopped quickly with FLEXTITE. Actually seals against water pressure. Efficient as a plaster coat for sealing off water and dampness. Converts wet basements into dry useful space. Used in elevator pits, tunnels, dams, tanks, retaining walls. In reconstruction work, broken pillars and beams can be quickly reshaped with FLEXTITE.

***MAIL COUPON* for FREE TRIAL OFFER**

FLEXTITE

FLEXROCK COMPANY • *Offices in Principal Cities*
3603-F Filbert St., Philadelphia 4, Pa.

Please send me complete FLEXTITE information and details of TRIAL ORDER PLAN — no obligation.

Name .....
Company .....
Address .....

For more details circle NED-6119 on enclosed inquiry slip

TOTE SYSTEM* TAKES THE "HAND" OUT OF MATERIAL HANDLING

TOTE SYSTEM has proved the most revolutionary solution to bulk material handling problems since the birth of the barrel. Gleaming 74 cu. ft. aluminum TOTE BINS, together with simplified filling and discharging equipment, comprise the TOTE SYSTEM*.

Ordinary methods of handling bulk materials are completely outmoded by the modern TOTE SYSTEM.

TOTE assures these outstanding advantages: elimination of sources of contamination and deterioration; prevention of rodent and insect infestation; elimination of losses due to spilling, breaking and sifting; and retention of original product quality.

Every day, more progressive industries are gearing their bulk materials handling problems to the TOTE SYSTEM, stepping up production and reducing handling costs to a minimum by saving time, handling, space, and container cost.

Write us today for detailed, illustrated information on the TOTE SYSTEM.

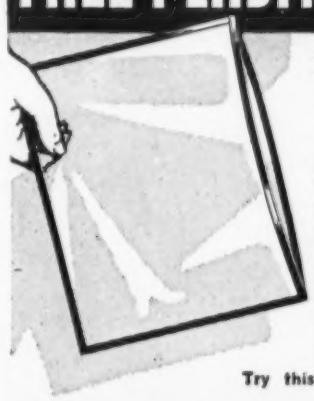
*Both TOTE and TOTE SYSTEM Reg. U. S. Pat. Off.

Address all inquiries to Dept. F

TOTE SYSTEM, INC.
720 So. 7th St. BEATRICE, NEBRASKA

For more details circle NED-6120 on enclosed inquiry slip

FREE PLASTIC ENVELOPE



Factory Experience Proves It Reduces Errors . . . Saves Work Speeds Up Production

Send for this free Kleer-Vu Plastic Envelope today and test it in your own plant. See how production records, job orders, blueprints, charts, graphs, etc., stay clear and clean always. No doubts, no errors, no wasted time because of blurred, grease-covered figures. No "make-overs" on vital war jobs. Work gets done quickly, efficiently. Ideal for much handled office forms, too. You can use Kleer-Vu Plastic Envelopes profitably in every phase of business.

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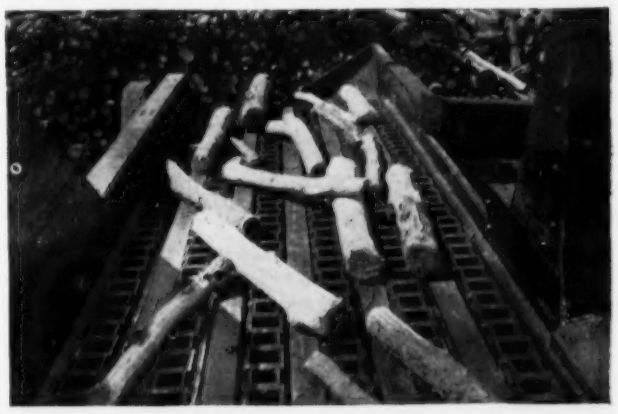
For a limited time only, 50 KV envelopes, (any style shown here), for $10. You save 33 1/3%. Money back in ten days if not satisfied.

AMERICAN KLEER-VU PLASTICS, INC.
57 Thames St. Brooklyn 6, N. Y.

For more details circle NED-6121 on enclosed inquiry slip



CUT COSTS . . . SPEED HANDLING

Many tough conveying jobs are made easy with Jeffrey chains once our engineers get the call. They can offer complete material handling and transmission service — rugged, dependable units engineered to speed production and cut costs through various processes.

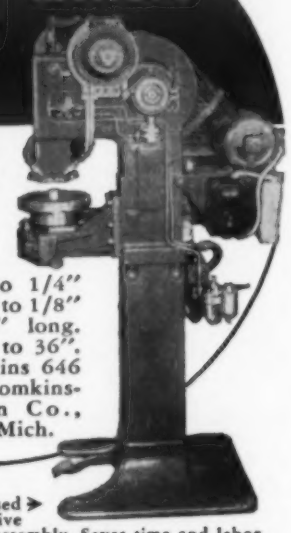
Jeffrey-equipped means efficient operation. Take advantage of Jeffrey experience and specialized training.

JEFFREY
ESTABLISHED 1877
THE JEFFREY MANUFACTURING CO.
952 Fourth Street, Columbus 16, Ohio

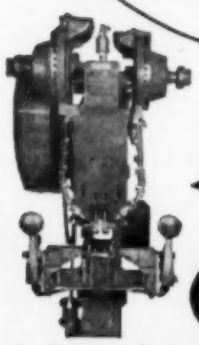
For more details circle NED-6122 on enclosed inquiry slip

SET RIVETS *faster* *with* T-J RIVITORS

CUT COSTS!



Speed up assembly . . . automatically feed and set solid rivets. Electrically powered Rivitor for 1/16" to 1/4" diam. solid steel rivets up to 7/8" long; air-powered Rivitor for aluminum alloy rivets up to 1/4" diam. or steel rivets up to 1/8" diam., up to 3/4" long. Throat depths, 8" to 36". Write for bulletins 646 & 847. The Tomkins-Johnson Co., Jackson, Mich.



T-J RIVITOR used ➤ for automotive clutch plate assembly. Saves time and labor doing a four-fold job—assembling, setting, inspecting and ejecting.

◄TWIN RIVITOR used for riveting flat steel springs to brackets for automobile horns.

33 YEARS EXPERIENCE

T-J TOMKINS-JOHNSON RIVITORS

▲ For more details circle NED-6123 on enclosed inquiry slip ▲

SPEED UP

Pangborn

Hydro-Finish is versatile! Use it to speed up cleaning, polishing and finishing of molds and dies as well as production line work.

Hydro-Finish saves you time, labor and money. Scale and discoloration are removed in *minutes* instead of hours. Cleaned surfaces are virtually free of directional grinding lines. Costly hand work is greatly reduced. No danger of excessive metal removal because tolerances are held to .0001". Fine mesh abrasives suspended in water do a precision job.

Find out how Pangborn Hydro-Finish improves product quality, increases tool and die life! For full details, write today for Bulletin 1400A to: PANGBORN CORPORATION, 2400 Pangborn Blvd., Hagerstown, Md.

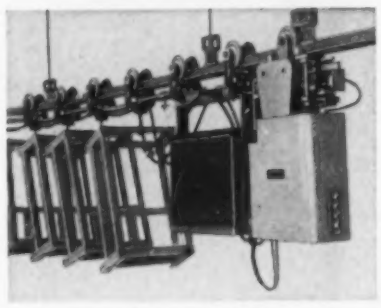
Look to Pangborn for the latest developments in Blast Cleaning and Dust Control equipment.

Pangborn

BLAST CLEANS CHEAPER
with the right equipment for every job

▲ For more details circle NED-6124 on enclosed inquiry slip ▲

OVERHEAD CONVEYOR SYSTEM
battery-powered self-contained unit operates as train on overhead track



Independent of outside sources of energy, Mono-Dyne overhead conveyor system makes use of drive unit or tractor which derives power from storage battery coupled behind it. Tractor is equipped with multiple speed controls for forward or reverse travel which can be changed while unit is in motion. Self-contained power permits maximum use of switches, curves, storage tracks and long runs. Load is coupled behind tractor and battery units.

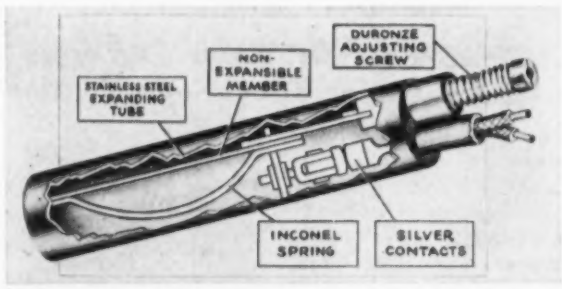
Antenna device ahead of tractor cuts off power if moving conveyor contacts any obstruction ahead, whether it be on track or projecting into area below track through which loaded train passes. Arm of antenna is designed to allow ample margin for over-travel. When obstruction is removed, arms automatically extend themselves and conveyor train resumes travel. Rear of train or any location along train can be equipped with push-button controls for changing speeds during receiving or dispatching operations. Battery can be charged on its carrier after it is disconnected from tractor.

System can be incorporated into existing lines without changing or adding to track plan. Hoists and other lifting devices can be used in conjunction with Mono-Dyne system. Made by **Bloom System, Inc.**, 19432 W. Davison Ave., Detroit 23, Mich.

▲ For more details circle NED-6125 on enclosed inquiry slip ▲

EXPANDING TUBE THERMOSTAT
utilizes stainless steel component

Expansion member of this Scaico expanding tube thermostat is stainless steel tube and nonexpanding member is Invar strip. Inconel spring gives fast make-and-break



action, and Duronze adjusting screw permits quick setting of control point at any temperature up to 600° F. Pulling or flexing of leads cannot affect contact position and leads can be replaced if necessary. Thermostats are supplied in three types for conduction, convection or immersion. Series 12 has ½-in. diameter, is 2 3/32 in. long and is suitable for 600-w loads at 110-230-v ac or dc; series 58 has ⅝-in. diameter, is 3 in. long and suitable for 1000-w loads at 110-230-v ac or dc. Made by **Smith Control & Instrument Corp.**, Dept. N, Market & Madison St., Palmyra, N. J.

▲ For more details circle NED-6126 on enclosed inquiry slip ▲

SYNTRON

PARTS FEEDERS

Feed Parts

Feeding Rubber Stoppers at 180°

1. Automatically
2. Single File
3. At Variable Rates
4. In Oriented Position

Without damage feed parts . . . small, medium or large . . . wood, metal, fibre, glass or plastic . . . of various shapes. . . . to grinders and presses, inspection and packaging devices, and other automatic processing equipment.

Extremely compact, these units operate by controlled electromagnetic vibration—no motors, gears, belts or other wearing parts to require expensive maintenance.

Catalog data upon request. Or send details of your problem along with sample parts to . . .

SYNTRON CO.
405 Lexington Ave. Homer City, Pa.

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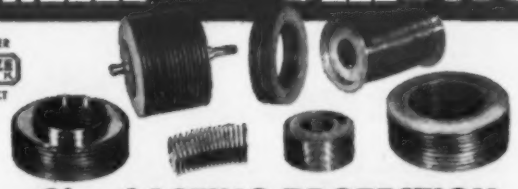
BREEZE Job-Engineered BELLOWS

ANOTHER BREEZE MARK PRODUCT



...Give LASTING PROTECTION Where Ordinary Bellows Fail

Breeze welded diaphragm bellows meet the operating life cycle of any equipment in which they are used *because every Breeze bellows design is individually engineered and built for the job.*

Breeze has no "stock bellows," but if you have a vibration problem in ducts, large or small, or want permanently sealed valve enclosures in any type of piping system, or need bellows for torque transmission or other uses, Breeze experience can quickly provide the answer . . . and production can meet your requirements.

A Breeze bellows is dependable because each diaphragm is designed to work well within its elastic limit. This is accomplished by thorough analysis of each application and careful design of the bellows to withstand all requirements. "Job engineering" each individual type eliminates makeshifts, assures efficient performance.

Breeze bellows are made in stainless steel, inconel, monel, nickel, steel, or other weldable alloys.

Feel free to consult us without obligation on your existing bellows requirements, or any other project where reliable welded diaphragm type bellows might solve a design problem.

BREEZE CORPORATIONS, INC.
41-V S. Sixth St., Newark 17, N.J.

OTHER BREEZE PRODUCTS: ACTUATORS · RADIO SHIELDING · AERO-SEAL HOSE CLAMPS

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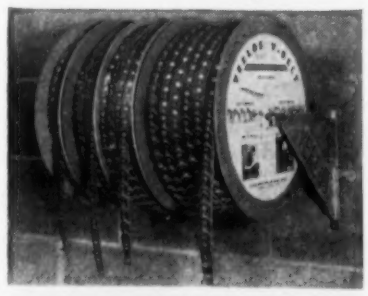
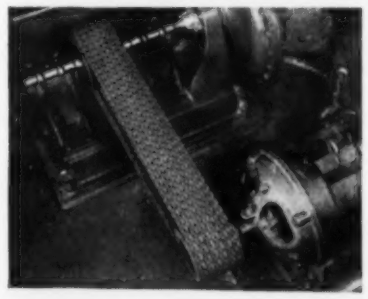
VEELOS The Adjustable V-Belt Pays for Itself





In Inventory

Veelos reduces required v-belt stocks. Just 4 reels of Veelos cover *every* v-belt need (up to 316 sizes) in the O, A, B and C widths. Stock only one reel for each width of belt you use—and *any length is readily available.*

In Maintenance

Veelos can be installed quickly and easily without dismantling outboard bearings or moving motor. Individual belts can be adjusted by simply removing or adding links.

In Operating Efficiency

Uniform tension can be maintained on all Veelos belts to provide vibrationless, full power delivery. Simple adjustment of each belt means that *matched sets stay matched.*

Write for your copy of the Veelos Data Book. It gives complete facts.

MANHEIM MANUFACTURING & BELTING CO.
650 Manbel St., Manheim, Pa.

VEELOS THE LINK V-BELT

Adjustable to any length • Adaptable to any drive

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Kester Solder

Kester Flux-Core Solders are made only from the finest grades of tin and lead commercially available. Fluxes chemically correct.

Eliminates Rejects

Rejects are eliminated when the correct solder for the job is used. Kester makes over 100,000 different types and sizes of Flux-Core Solder.

Faster

Using Kester "Speed" Solders will increase the output of your assembly lines.

KESTER SOLDER COMPANY
4201 Wrightwood Avenue
Chicago 39, Ill.
Newark, N. J. Brantford, Can.

KESTER SOLDER

SEND FOR FREE MANUAL: "SOLDER AND SOLDERING TECHNIQUE"

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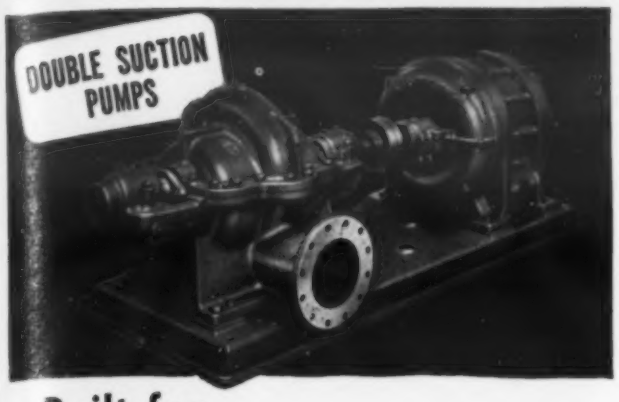

Built for LOW MAINTENANCE

GENEROUS CONSTRUCTION with extra metal thicknesses, extra strong parts, extra construction features and extra careful workmanship means lower pumping costs for you. Every pump tested on most modern equipment in industry. Each installation individually engineered.

Horizontally split casing, ball bearings, balanced impeller, wearing rings, hand finished water passages, cast shaft sleeves, generous stuffing box length. Choice of iron, bronze, stainless steel.

Standard sizes from 10 to 7000 gpm with 475 foot head. Larger sizes available. For complete information, call your Allis-Chalmers Office, or write Allis-Chalmers, Milwaukee 1, Wisconsin for bulletin 08B6146.

A-3320

ALLIS-CHALMERS

▲ For more details circle **NED-6131** on enclosed inquiry slip ▲

VEMCO DRAFTING MACHINES

Designed by Engineers for Engineers

1. *Convenient thumb-action indexing for every 15°.*
2. *Simple and positive band tightening device.*
3. *Flexibly articulated arms for easy head movement and flat-lying scales.*

THE engineers responsible for the design of VEMCO Drafting Machines are thoroughly familiar with drafting problems. VEMCO Machines incorporate ALL the facilities desired by the engineer to fill his exacting needs ★ The VEMCO offers smooth, effortless movement . . . positive setting and control for speed and accuracy. flexibility for convenient operation. . elimination of an awkward assortment of drafting tools . . sturdy construction for durability. ★ VEMCO Drafting Machines are finished in blue-green metallic color for eye comfort. ★ Ask your VEMCO dealer for a demonstration or write today for illustrated catalog covering drafting machines and drawing instruments.

V&E MANUFACTURING CO.
PASADENA 2, CALIFORNIA

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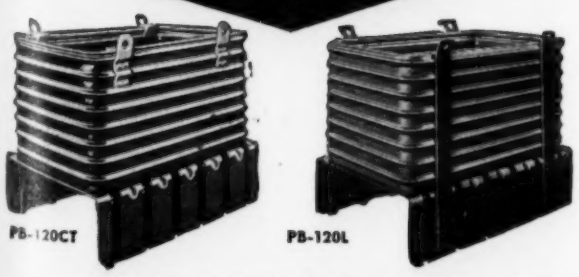
TRUSCON has the MATERIALS HANDLING EQUIPMENT *to fit your needs!*



The production line keeps moving, *on schedule*, when parts and materials are stored and moved in Truscon Steel Boxes and Skids. Truscon materials handling equipment assures efficient storage and movement of parts, and makes sure man-hours are used for valuable production instead of wasteful waiting.

To find the Truscon Steel Boxes and Skids to meet your needs, write for free, illustrated catalog.

TRUSCON STEEL COMPANY, Pressed Steel Division
6100 Truscon Ave., Cleveland 4, Ohio
Subsidiary of Republic Steel Corporation

TRUSCON STEEL BOXES AND SKID PLATFORMS

▲ For more details circle **NED-6133** on enclosed inquiry slip ▲

SMALL THREAD INSERTS strengthen threads in soft materials

Tapped threads in aluminum, magnesium, plastic, iron, steel, brass, bronze and wooden components can be strengthened by small - size stainless steel helical wire thread inserts. Small sizes include 8-36 and 6-40 sizes in fine-thread series, 5-40 and 4-40 in coarse-thread series. All are available in 1, 1½ and 2-diameter lengths. High load-bearing qualities result from fact that spring-like inserts provide thread engagements of 90 per cent or more and thus evenly distribute load. Use of 18-8 stainless steel provides resistance to abrasion and corrosion. Made by **Heli-Coil Corp.**, 47-61 35th St., Long Island City 1, N. Y.

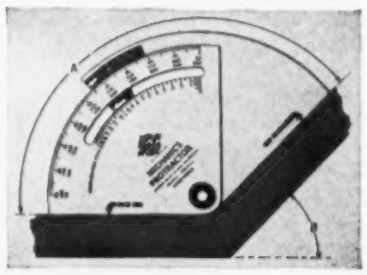
▲ For more details circle **NED-6134** on enclosed inquiry slip ▲

DADO TOOL has high speed tool steel blades

Cuts up to 1 in. deep and widths from ¼ to 11/16 in. can be made with this 9-in. Quick-Set dado tool which is instantly adjustable. It is set for any width within range by loosening arbor nut and turning graduated dial without removing tool from arbor. Cutting action is furnished by 12 high speed tool steel blades which cut through hardwood without vibration, burning or chewing. Dado is bored for 1-in. shaft, with ¾ and ⅝-in. bushings being available. Made by **Consolidated Machinery & Supply Co.**, 2031 Santa Fe Ave., Los Angeles 21, Calif.

▲ For more details circle **NED-6135** on enclosed inquiry slip ▲

PROTRACTOR measures angles up to 180 degrees

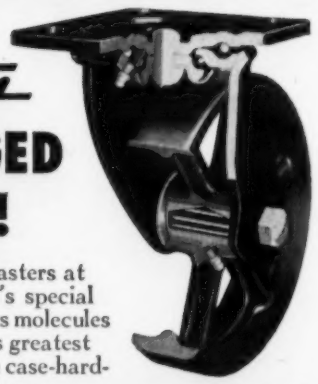


Mechanic's protractor for on-the-job angle measuring gives the following in one setting: readings for outside angles, such as angles of bend or deflection; reading for inside (inclusive) angles; and measuring inches-per-foot against degrees, up to 24 in. per foot (63 degrees, 26 minutes). Difficult angles can be measured in conjunction with bevel. The 3⅝-in. size allows carrying tool in pocket. Price is $2.50. Distributed by **Interstate Sales Co.**, Dept. N, 123 E. Eighteenth St., New York 3, N. Y.

▲ For more details circle **NED-6136** on enclosed inquiry slip ▲

SAVE MONEY!

USE *Rapistan* COLD-FORGED CASTERS!



Rugged, thick-sectioned casters at new low prices! Rapistan's special method of cold-forging flows molecules of steel to points of caster's greatest wear . . . raceways are then case-hardened . . . result is unusual strength and durability, at lower cost than ever before! Mail coupon for money-saving details.

Rapistan® INDUSTRIAL CASTERS

The RAPIDS-STANDARD Co., Inc.
518 Rapistan Bldg., Grand Rapids, Mich.
Please rush information on the new Rapistan Cold-Forged casters!

NAME_____
COMPANY_____
STREET_____
CITY_____ STATE_____

▲ For more details circle **NED-6137** on enclosed inquiry slip ▲

3 men +3 "J" hoists

multiply production at Finger Lakes Chemical Co., Inc., Etna, N. Y., where Robbins & Myers "j" hoists do vertical and lateral materials handling in their 3 story and basement building. "Each time a hoist was installed," writes Mr. C. S. Benjamin, vice president, "we acquired a substantial increase in productive capacity *without increased labor*. In fact, the work became easier for the men . . . we receive and ship in carload and truckload quantities, with the entire operation being accomplished by a force of three men and one foreman." More production for each man, machine, and square foot of floor space may be easier to obtain than you think! An R & M field engineer will be glad to study your problems without obligation.

Write for Bulletin No. N81D.

TAKE IT UP WITH **ROBBINS & MYERS** INC

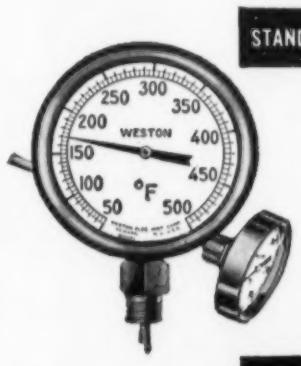
HOIST AND CRANE DIVISION, SPRINGFIELD 99, OHIO

▲ For more details circle **NED-6138** on enclosed inquiry slip ▲

WESTON *Readable* ALL-METAL THERMOMETERS

AVAILABLE IN THESE 3 TYPES

STANDARD INDUSTRIAL THERMOMETERS



All-metal dial types with stainless steel stems, in straight and angle forms. Scale lengths 3"–6" and 9", with stems from 2½" to 72". Available as testing thermometers, and for general purpose and heavy duty service. Ranges from −100 to +1000°F. All-metal construction prevents breakage, assures dependable accuracy for longer periods.

CONTACT MAKING THERMOMETERS

Combines the features of the all-metal indicating thermometer with an alarm or control device. Has adjustable contact arm mounted in the glass and bezel. Supplied to make contact on increasing or decreasing temperatures. Has positive magnetic type contacts. Contact rating . . . 100 ma at 110 volts a-c; 50 ma at 110 volts d-c. Stem lengths 2½" to 24".

MAX-MIN® THERMOMETERS

Equipped with a manually set red index which moves up or down scale with pointer, remaining at extreme temperature reached until reset. Thus one reading gives present temperature, and maximum or minimum reached since last reading. Available in scale lengths of 6" and 9"—stem lengths 2½" to 24".

Literature describing Weston all-metal, as well as electrical and glass thermometers, sent on request. WESTON Electrical Instrument Corporation, 615 Frelinghuysen Avenue, Newark 5, New Jersey . . . manufacturers of Weston and TAGliabue instruments.

WESTON *Instruments*

▲ For more details circle **NED-6139** on enclosed inquiry slip ▲

STANLEY HAMMERS

...each designed to do its job better

STANLEY NO. 51½ NAIL HAMMER

STANLEY NO. 310 BALL PEIN

STANLEY NO. 452 TINNER'S SETTING

STANLEY NO. 594 SOFT FACE

In the broad line of Stanley Hammers are types eminently fitted for a wide variety of work in industrial plants. Each of the types illustrated here is for a different kind of work.

For the packing and shipping room, and building maintenance work, the No. 51½ Stanley Nail Hammer. For machine shop and product service work the No. 310 Ball Pein Hammer and the No. 232 Machinist's Riveting Hammer. For assembly and light metal forming, the No. 594 Soft Face Hammer. Each is available in a variety of weights and sizes to meet all industrial needs. Stanley Tools, New Britain, Conn.

THE TOOL BOX OF THE WORLD

STANLEY

Reg. U.S. Pat. Off.

HARDWARE • TOOLS • ELECTRIC TOOLS • STEEL STRAPPING • STEEL

For more details circle NED-6140 on enclosed inquiry slip

"Nearest Thing to an Everlasting Floor!"

SAYS ONE FACTORY MANAGER*

Floors of EMERI-CRETE

made with CORTLAND EMERY AGGREGATE

End Floor Maintenance for Years

For use on new floors or resurfacing old ones, wherever floors take a beating or maintenance costs are a headache! Applies as easily as ordinary concrete and outwears it many times over. Resists the effects of practically every processing material as well as extreme heat and cold. Even, non-skid surface prevents accidents.

Records of hundreds of EMERI-CRETE FLOORS, made with CORTLAND EMERY AGGREGATE, show that they have all but eliminated maintenance costs. EMERI-CRETE, made with CORTLAND EMERY AGGREGATE, is 100% natural crushed emery, cement and water. It bonds to the underlying concrete slab to form a hard "armor plate" that is practically immune to wear—the world's toughest floor . . . and the cheapest, on a year-in, year-out basis.

*Name on request

• DON'T SPEND ANOTHER DOLLAR ON FLOOR MAINTENANCE UNTIL YOU HAVE THE FACTS ON EMERI-CRETE, made with CORTLAND EMERY AGGREGATE

WALTER MAGUIRE COMPANY, INC., DEPT. NED
60 E. 42nd Street, New York 17, N. Y.

☐ Please send detailed bulletin on EMERI-CRETE, made with CORTLAND EMERY AGGREGATE

☐ Have representative make floor survey.

NAME _____

COMPANY _____

ADDRESS _____

CITY _____ ZONE _____ STATE _____

For more details circle NED-6141 on enclosed inquiry slip

CONTINUOUS SAMPLING MONITOR facilitates control of quality and eliminates paper work

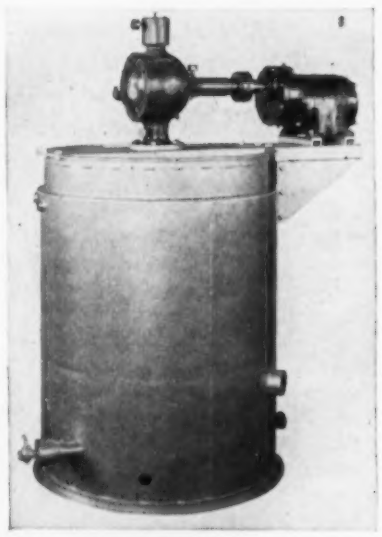
In addition to insuring average outgoing quality level, this continuous sampling monitor eliminates paperwork and minimizes inspection time. Monitor operates on 110-v and has maximum counting speed of 500 units per minute. Control box is located so that inspector can operate pushbuttons and read indicator lights.

In operation, a given number of consecutive acceptable units is established by 100 per cent inspection. This clearance number and the percentage number to be used for sampling are determined by desired average outgoing quality level selected from set of curves supplied with equipment. When clearance number is reached, sampling begins. Prescribed percentage of units is inspected until an unacceptable unit is found. This defective unit is replaced by a good unit, and 100 per cent inspection is followed until clearance is reached, at which time sampling resumes. This procedure continues.

Monitor, set to any predetermined number from 1 to 400, automatically keeps track of clearance number. When counter reaches set number, contact is broken and white sampling light indicates that predetermined number of acceptable units has been inspected and sampling can resume. Operator inspects every unit while red light is on. Accept or reject pushbuttons are pushed after each inspection. Made by **General Electric Co.**, Schenectady 5, N. Y.

For more details circle NED-6142 on enclosed inquiry slip

GAS HEATED MIXER has 36 x 36-in. stainless tank



Mixing can be performed under accurate heat control with this gas-fired mixer with 36 x 36-in. dished bottom inner mixing tank of 14-gage stainless steel. Full jacket for 5-psi gage working pressure surrounds inner tank. Outer jacket wall extends down to form stable flanged base. Four ring type gas burners, symmetrically positioned under tank, are rated at 300 cfm when burning manufactured gas. Agitator mechanism consists of six 1½-in. wide vertical stainless steel blades equally spaced on horizontal stainless steel T-bar. They are driven by 2-hp gear motor through speed reducer at 47 rpm. Discharge is through bottom of tank. Made by **L. O. Koven & Brother, Inc.**, 150 Ogden Ave., Jersey City 7, N. J.

For more details circle NED-6143 on enclosed inquiry slip

SAFETY EQUIPMENT FOR ALL INDUSTRIES

IPCO M and M RAIL CLAMPS

For car stops, on loading platforms, temporary sidings, cars on grades, and traveling cranes . . . Used and recommended by leading Steel Companies, Manufacturing Plants, Mines, Grain Elevators, Cement Plants and Quarries.

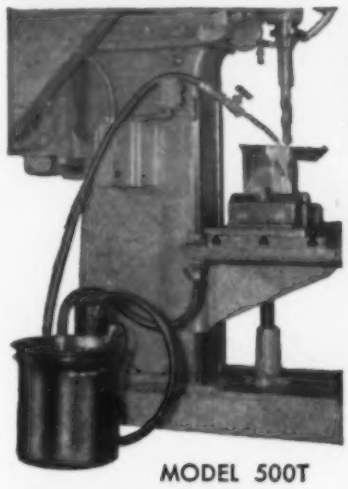
WRITE FOR Bulletin L-81

IPCO Safety Equipment for all Industries

INDUSTRIAL PRODUCTS COMPANY

2807 N. FOURTH STREET • PHILADELPHIA 33, PA.

For more details circle NED-6144 on enclosed inquiry slip



SAVE 40%

on your COOLANT PUMPS

MODEL 500T

FOR PERMANENT OR TEMPORARY USE

110 V. Centrifugal Pump mounted on 5 gal. heavy steel tank. Pumps from 1 to 500 gallons per hour as required. Handles chips.

ONLY $59.50 f.o.b. factory

8 ft. of oil resisting ¾" discharge and return hose with nozzle. 10 ft. cord with plug.

Write for catalog on complete line.

Brady CORPORATION

18th at Ebright Muncie, Indiana

For more details circle NED-6145 on enclosed inquiry slip

If you use tubing to convey liquids, gases or semi-solids, Titeflex can help you do it better at less cost. Titeflex flexible tubing is made in brass, bronze, stainless, Monel and Inconel. It's made in types and sizes to withstand temperatures to 1550°F. and pressures to 6800 psi. It's available in a full range of sizes, complete with any required styles of fittings. In addition, Titeflex is all-metal. Regardless of the operation, it is more resistant to fatigue . . . it will stand up longer and give better service.

Write us for catalog outlining Titeflex advantages in full.

Titeflex, Inc.

507 Frelinghuysen Avenue, Newark 5, N. J.

TITEFLEX FILLS TUBING REQUIREMENTS TO A . . T

For more details circle NED-6146 on enclosed inquiry slip

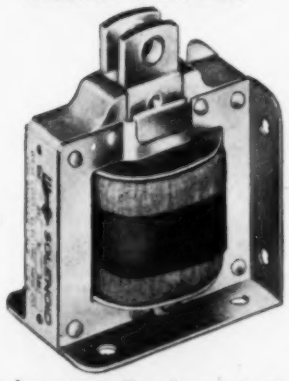
SOLENOIDS

AC or DC

Industrial or Aircraft

Vertical or Horizontal Mounting

Plunger Connections Bushed For Smooth Bearing Surfaces



Precision Designed For Long Life, Efficient Operation, And Compactness

Coils Easily Replaceable

These Solenoids incorporate Transformer Grade Silicon Iron, Stainless Steel Plunger Guides, Coils of Best Insulated Magnet Wire and Varnish.

Our engineers are ready to solve your particular design or application problem.

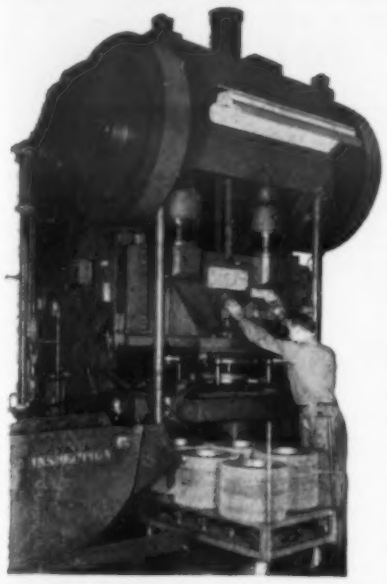
Write for new 200 series AC Solenoid brochure.

DEPENDABLE WesCo PRODUCTS SINCE 1927

WEST COAST ELECTRICAL MFG. CORP.

CENTURY & MAIN ST. LOS ANGELES 3, CALIF.

For more details circle NED-6147 on enclosed inquiry slip



Clutch plates of sizes 11¾" to 22¾" O.D. are made with this 300 ton Steelweld Press.

2000 CLUTCH PLATES PUNCHED PER SHIFT

Many unusual jobs far afield from bending can be done economically on Steelweld Presses built with simple variations to suit requirements. The machine illustrated provides a low-cost method of punching clutch plates of 11 to 13 gauge metal.

Send for free copy of catalog No. 2011

THE CLEVELAND CRANE & ENGINEERING CO.
6637 East 281st St. Wickliffe, Ohio

STEELWELD PRESSES

For more details circle **NED-6148** on enclosed inquiry slip

PRECISION THREADING

Faster Production! • Reduced Fatigue!

OSTER

No. 902 "RAPIDUCTION" BOLT MACHINE

● Production threading of bolts, pipe, nipples, etc., is performed on this machine. Two spindle speeds obtained without change of sheaves due to multi-speed motor. Automatic tripping and re-setting device for die-head and lead screw eliminates the "human element" in determining the exact moment the die-head should be opened and lead screw disengaged to obtain desired length of thread. No. 902 "RAPIDUCTION" has a standard bolt range N.C. ½" to 2"; 12 pitch or finer ½" to 2¼". Pipe or nipple range ¼" to 2". Complete details on request.

THE OSTER MFG. COMPANY
2066 East 61st Street • Cleveland 3, Ohio, U.S.A.
FIRST WITH THE BEST IN THREADING MACHINES

For more details circle **NED-6149** on enclosed inquiry slip

MOVING MOUNTAINS

with Spencer Vacuum

Yes — Spencer Vacuum is moving chemicals, hot materials and just plain debris by the ton. But the biggest mountains of industry are plant housekeeping and sanitation. Whether it's 500 acres in a chemical plant to be cleaned every night, or the few specks of dust that cause rejects in ceramic and instrument plants — Spencers are doing the job with less man power.

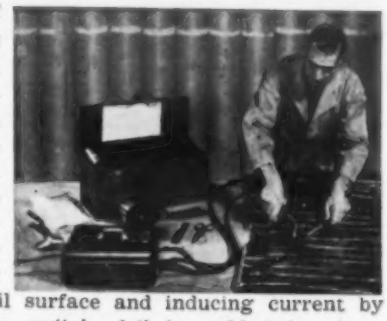
Ask for Bulletin No. 144—it describes 132 applications.

THE SPENCER TURBINE COMPANY • HARTFORD 6, CONNECTICUT
SPENCER HARTFORD

439-38

For more details circle **NED-6150** on enclosed inquiry slip

SPOT WELDER
portable unit repairs foil and screen



On-the-job repair of Inconel and stainless steel foil and screen, plus alterations required by changes in design, can be made by Hit-Kit No. 45-21144 portable spot welder. Operation is by trigger-type switch. By contacting both electrodes to foil surface and inducing current by operating trigger-type switch, foil is welded in place. Leads are 9 ft long. Operation is on 110 v ac. Foil thicknesses up to 0.004-in. and screen wire diameters up to 0.020-in. can be joined. Complete outfit fits in 8 x 10 x 20-in. box weighing 35 lb. Made by **H. I. Thompson Co.**, Dept. N, 1733 Cordova St., Los Angeles 7, Calif.

For more details circle **NED-6151** on enclosed inquiry slip

WELDING ELECTRODE HOLDER
insulation assures safety in use

Available in 500-amp heavy-duty, 300-amp general-purpose and 200-amp light-duty models, Cam-Lok electrode holder is insulated with tough, laminated material. Handle is sized to fit operator's hand, and loading trigger can be operated with one hand. Trigger works easily, yet jaws grip firmly. Use in cramped spaces and elimination of rod bending are made possible by jaw position. Made by **Empire Products, Inc.**, Cam-Lok Div., P. O. Box 98B, Cincinnati 36, O.

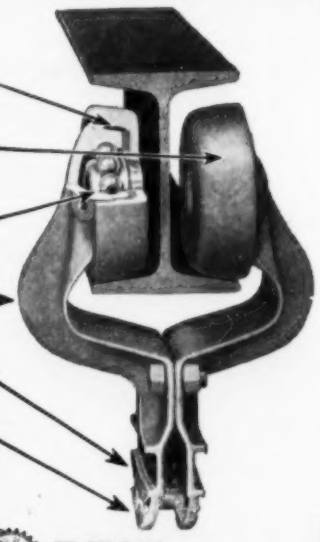
For more details circle **NED-6152** on enclosed inquiry slip

NUMBERING & LETTERING PRESS
stamps soft metals and mild steel

All spacing adjustments, including table release, are easily accessible on front of this numbering and lettering detail press for stamping all soft metals as well as mild steel. Table adjusts from ⅝-in. up. Five-inch diameter dial is available in character sizes of 1/16, 3/32, 1/8, 3/16 or 1/4-in. Model 141 is hand operated, model 142 is air operated and model 143, motorized. Automatic spacer can be regulated up to ¼-in. for fitting characters into panels of name plates. Dials have 42 characters: letters A to Z, figures 0 to 9, and various symbols and punctuation marks. Made by **Numberall Stamp & Tool Co.**, Dept. LP25, Huguenot Park, Staten Island 12, N. Y.

For more details circle **NED-6153** on enclosed inquiry slip

Important points to look for when you buy trolleys You get them all when you buy Link-Belt



Effective sealing of wheel and bracket keeps out dust and dirt, yet wheels turn freely.

Wheels are drop-forged, internally machined to extremely close tolerances.

Raceways are induction hardened. High load capacity is based on entire assembly — not just on bearing.

Rugged, one-piece bracket and clevis are drop-forged and heat-treated—fewer parts to maintain.

Trolley can replace other makes without disturbing chain's operating position.

Clevis pins are locked in bracket, cannot rotate. Bracket wear is minimized.

Write for Folder 2241-B.

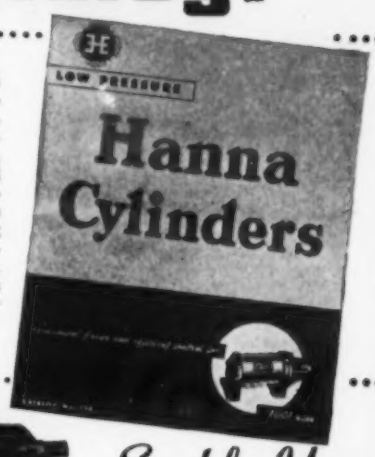
LINK-BELT

LINK-BELT COMPANY: Chicago 8, Indianapolis 6, Philadelphia 40, Atlanta, Houston 1, Minneapolis 5, San Francisco 24, Los Angeles 33, Seattle 4, Toronto 8. 12,304

For more details circle **NED-6154** on enclosed inquiry slip

New Hanna
LOW PRESSURE CYLINDER Catalog!

New Hanna Catalog 236 gives you the complete story on Hanna Low Pressure Cylinders . . . includes dimension drawings, construction features and capacities of all standard-sized cylinders . . . gives information on mounting brackets, cylinder cushions and accessories . . . 20 pages of cylinder facts . . . a copy is yours for the asking!



Send for Your Copy Today

Hanna Engineering Works
HYDRAULIC AND PNEUMATIC EQUIPMENT . . . CYLINDERS . . . VALVES . . . RIVETERS
1759 Elston Avenue, Chicago 22, Illinois

For more details circle **NED-6155** on enclosed inquiry slip

"THE COILS IN OUR MAGNETIC REVERSING SWITCHES BURNED OUT EVERY TIME THE SILO GATES JAMMED, BUT THAT WAS BEFORE WE PROTECTED THEM WITH FUSETRON FUSES"

"Sure! you can quote me," continues Mr. E. C. Willy, Chief Electrician, H. J. Kaiser Co., Radum Plant, Pleasanton, Calif.

"In the past, we found magnetic reversing switches welded the main contacts when Silo Gates jammed. When reverse control operated, the armature could not properly engage, resulting in a burned out coil.

"The coils cost about $4.00 each, but most important was the substantial production loss each time the coil burned out.

"We now have 0.4 amp. Fusetron dual-element fuses installed to protect these coils. During the year 1950 we blew about 100 Fusetron fuses, but didn't lose any coils. This represents a saving of at least $400.00 in coils and kept me from being dragged out of bed at night, an occurence that often happened before. Then, too, we can replace burned out Fusetron fuses much faster than we can replace coils, to say nothing of the valuable production time we save."

Why Risk Losses in Your Plant, When You too, Can Get 10 Point Protection by Using

Fusetron (DUAL ELEMENT) Fuses

One burned out solenoid . . .
One destroyed switch or panel . .
One needless shut down . . .
One lost motor . . .
May cost you more than replacing every ordinary fuse with a FUSETRON dual-element fuse.

FUSETRON
TRUSTWORTHY NAMES IN ELECTRICAL PROTECTION
BUSS

BUSSMANN MFG. CO.
Division of McGraw Electric Co.
University at Jefferson
St. Louis 7, Mo.

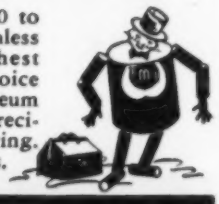
Fusetron Fuses have high interrupting capacity as shown by tests of Electrical Testing Laboratories of New York City in December 1947.

For more details circle **NED-6156** on enclosed inquiry slip

1941 ≈ 1951
A DECADE OF QUALITY SERVICE

The Best Names in American Industry Depend On Us For SMALL DIAMETER Stainless Steel Tubing

TMI specializes in O.D. .050 to .625 precision cold drawn stainless steel tubing made to highest quality standards . . . first choice of leaders in aviation, petroleum and chemical industries and precision instrument manufacturing. We welcome YOUR inquiries.



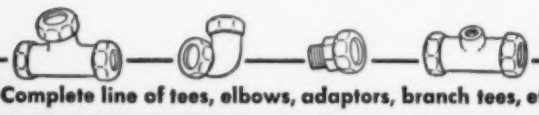
TUBE METHODS INC.
METALLURGISTS • ENGINEERS • MANUFACTURERS
BRIDGEPORT (Montgomery County), PA.

▲ For more details circle NED-6157 on enclosed inquiry slip ▲

½-minute pipe joint does 3 things a union can't do

● ELIMINATES THREADING ● PERMITS DEFLECTION
● SIMPLIFIES ASSEMBLY

Dresser Style 65 Fittings make permanently flexible-tight joints on plain-end pipe—quickly and without exact pipe fitting. They permit deflection up to 6° . . . stay tight despite vibration. Just stab on and tighten. For pipe from ⅜" to 2" diameter. Write for STYLE 65 CATALOG.



Complete line of tees, elbows, adaptors, branch tees, etc.

DRESSER "NO-THREAD" FITTINGS

Dresser Manufacturing Division, 32 Fisher Ave., Bradford, Pa. (One of the Dresser Industries). Sales Offices: New York, Philadelphia, Chicago, Houston, South San Francisco.

▲ For more details circle NED-6158 on enclosed inquiry slip ▲

Quick, Thorough Cleaning!

General Electric Heavy-duty Vacuum Cleaners

In more and more plants, General Electric Heavy-duty Vacuum Cleaners are being used because they speed thorough cleaning of floors and above-the-floor areas.

These powerful cleaners also provide efficient portable dust control around machines, make gathering of small metal or other scrap easy. Wet pickup is also a feature of this model. Write for details.

MAIL TODAY

General Electric Company, Dept. 22-2625
1285 Boston Ave., Bridgeport 2, Connecticut
Send, without obligation, details about General Electric heavy-duty cleaning equipment.

Name.....
Firm.....
Address.....
City..... State.....

GENERAL ELECTRIC

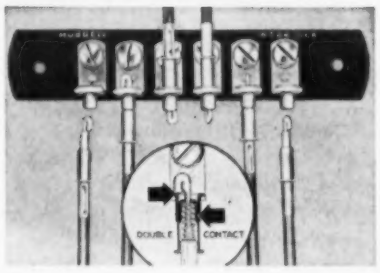
▲ For more details circle NED-6159 on enclosed inquiry slip ▲

METAL FASTENER
joins wood and other materials

Usable with or without nails or glue, Burr-Lock metal fastener is applied by placing it between two pieces of wood and driving or pressing pieces together. Burr which is steel ring having sharp pronged edges, holds tight because it enters both pieces equidistant, even if soft fir and hard oak are joined. If job requires setting burr in one piece of wood before joining another piece to it, a special tool is used. Fastener does not mar outer surface of wood or leave holes. It is made in ½, 1 and 1½ in. sizes. Made by **Metal Industries, Inc.**, Burr-Lock Div., 187 N. Four Mile Run Rd., Youngstown, O.

▲ For more details circle NED-6160 on enclosed inquiry slip ▲

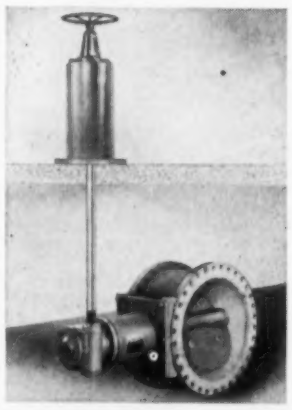
ELECTRONIC CONNECTOR
has shock and vibrationproof lock



Straight insertion at terminal locks plug of this Hubbell-Interlock electronic connector securely in its outlet. Contact parts themselves form lock which is shock and vibrationproof. To remove plug, locking mechanism is released by slight pull on flanged sleeve. Double contact is realized through frictional contact and knife-edge contact effected by locking contacts in plug and outlet, held under constant spring pressure. Plugs and outlets shown are suitable for all wiring connections and terminal strips. Connector is rated at 10 amp, 110 v. Terminals and wiring tools can be supplied to suit all wiring conditions. Made by **Harvey Hubbell, Inc.**, Dept. X-1, State & Bostwick Ave., Bridgeport 2, Conn.

▲ For more details circle NED-6161 on enclosed inquiry slip ▲

MANUAL CONTROL VALVE
babbitt seat assures tight closure



Equipped with totally-enclosed gear reduction drive, extended shaft and floor stand, No. 788 heavy duty valve utilizes babbitt seat in body and Monel or stainless steel welded to periphery of disk. This metal-to-metal seat gives satisfactory commercial shut-off for most services. For example, 36-in. valve has leakage of only 50 gph with a 350-ft head of water. Remote, automatic or semiautomatic controls are also available for this valve. Made by **R-S Products Corp.**, 4500 Germantown Ave., Philadelphia 44, Pa.

▲ For more details circle NED-6162 on enclosed inquiry slip ▲

KEEP THINGS *MOVING* with a METZGAR "LIVE ROLLER" POWER UNIT

Handles the jobs that are too "tough" for powered belt units. Undamaged by sharp corners or rough edged work. Supplies dependable power in gravity lines.

Work can be slowed or held without stopping conveyor.

4 STANDARD SIZES
ADJUSTABLE HEIGHT

STANDARD WIDTHS
11½"; 15"; 18"; 24"

ALL STEEL BEARING SURFACE

PERMANENT OR PORTABLE BASE

For Full Specifications and Price write for folder No. 1249

METZGAR CO.
416 DOUGLAS ST., N. W.
GRAND RAPIDS 4, MICH.

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Strongest

in every size

Each size of Worthington QD sheaves is designed for the load it has to carry—rather than proportioned from one basic design.

I-beam spokes on driven sheave help carry heavier load with less sheave weight.

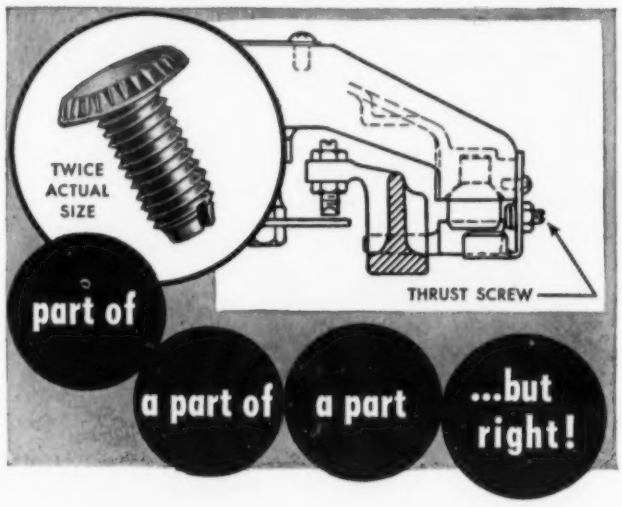
Give your men the convenience of QD's exclusive two-part taper-mated cone-grip construction and long pull-up bolts—easy to get on, easy to get off, yet always tight on the shaft. And give your drives the strength of QD's sized-for-load designs, locked shaft key and stronger I-beam spokes.

Write for Bulletin B-1400-B7F. Worthington Pump and Machinery Corporation, Multi-V-Drive Sales Division, Buffalo, N. Y.

WORTHINGTON

MV.1.6

▲ For more details circle NED-6164 on enclosed inquiry slip ▲



This Progressive-made fastener is one of the many precision parts in the Toledo Scale Company's Guardian Duplex scale. It is used as a thrust screw in the main lever assembly for making fine adjustments.

Hardly a major part, but still it must be right. "Honest Weight" is Toledo's business and precision is required right down to the smallest component.

Manufacturing precision fasteners is Progressive's business, as leading companies well know. If you need a special fastener manufactured in quantity to exact specifications, see Progressive.

WRITE FOR OUR CATALOG
IT MAY SAVE YOU MONEY

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THE PROGRESSIVE MANUFACTURING COMPANY
46 NORWOOD ST., TORRINGTON, CONN.
SALES OFFICES: SAN FRANCISCO, LOS ANGELES, PORTLAND, DETROIT, PHILADELPHIA, CLEVELAND, SEATTLE, BOSTON, SYRACUSE, ST. LOUIS, CHICAGO.

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OZALID SAVES VALUABLE DRAFTING TIME!

Ozalid is a *speedy copying process* that reproduces anything drawn, typed or written*—in seconds. Cuts skilled manpower hours and costs because changes on drawings, specifications, reports are instantly made with an Ozalid *intermediate* . . . because Ozalid copies *any size*—in several colors—on a variety of materials.

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Johnson City, New York. Ozalid in Canada—Hughes Owens Co., Ltd., Montreal

A Division of General Aniline & Film Corporation. *"From Research to Reality."*

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Vaportight

Industrial Lighting Fixtures

Dependable lighting in the presence of moisture and non-flammable dusts, gases or vapors is assured by the substantial protection built into Pyle-National Vaportight Pylets. Heavy cast metal bases, weathertight sealing, and heavy guards, are features that provide for the most severe operating conditions of industrial service.

The Pylet line includes a complete range of types, including types for conduit and wall mounting, universal 4 and 5-hub types, two and three gang, handrail and outlet box fixtures for 10 watt to 200 watt lamps. Also Midget fixtures, plugs and receptacles, switches, junction boxes and other vaportight Pylets. Consult your Pylet Catalog 1100 for complete listings.

THE PYLE-NATIONAL COMPANY
1342 North Kostner Avenue • Chicago 51, Illinois

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Handy New Catalog!

20 pages

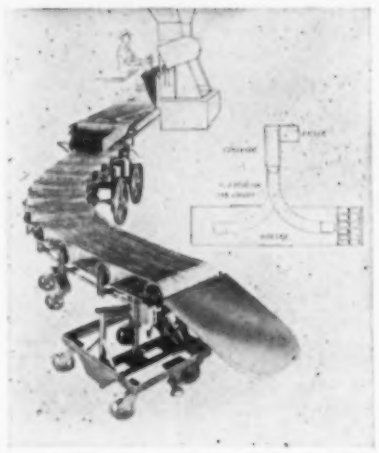
• *Data* on instrument ball bearing dimensions, load ratings, tolerances, mounting, etc. *Information* on instrument ball bearing standards. *Illustrations* of typical instrument bearing applications. Send for copy of Instrument Bearing Catalog. The Fafnir Bearing Company, New Britain, Conn.

FAFNIR BALL BEARINGS

MOST COMPLETE LINE IN AMERICA

▲ For more details circle **NED-6168** on enclosed inquiry slip ▲

BOX CAR LOADER
bends around 90-degree curve



Consisting of a series of endless spring belts which operate over grooved steel rollers, this power-driven telescoping box car loader operates under bag-filling machine conveyor to deliver bags to point of loading in box car. Car loader can set at any curve up to 90-degree angle while under power. It will go around car door and into end of car. As loading progresses, car loader telescopes under packing machine conveyor and flow of bags continues without interruption. Loader has capacity of 30 bags per minute and can be engineered to suit conditions. Made by **Flexoveyor Mfg. Co.,** 1224 S. Acoma St., Denver 10, Colo.

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WIRE ROPE CLAMP & THIMBLE
available for 3/8 to 7/8-in. ropes

Easily installed in field or shop, Newco wire rope clamp and thimble devolops 85 to 90 per cent of ultimate rope strength. As load increases, cast steel halves are forced tighter together. Shape of clamp protects rope from damage. Sizes to fit 5/8, 1/2, 5/8, 3/4 and 7/8-in. wire ropes are available. Made by **Newman Mfg. Co.,** P. O. Box 5905, Kansas City 2, Mo.

▲ For more details circle **NED-6170** on enclosed inquiry slip ▲

STOKER FEEDER
for wood chips, sawdust or coal

Savings in handling of fuels can be realized from use of Flo-Matic stoker feeder screw conveyor which will deliver sufficient wood chips, hogged wood, sawdust or coal to supply 500 boiler horsepower. It is easily adapted to most boiler rooms and can be used in connection with existing stokers. Fuel is taken from storage bin and fed to one boiler. Alternate boilers can be fed by dual discharge available at extra cost. Variable speed screw drive, hopper and motor for 16-ft slow speed conveyor also are extra. Other lengths are available. Made by **American Coal Burner Co.,** 16-Y E. Erie St., Chicago 11, Ill.

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• SMALL
• COMPACT
• WELL DESIGNED
• DEPENDABLE

AGASTAT
TRADE-MARK
TIME DELAY RELAY

PROTECTS BIG INDUSTRY PROCESSES

A'C'A AIRPORT LIGHTING · A'C'A AGASTAT TIME DELAY RELAYS · A'C'A STIMSONITE REFLECTORS · A'C'A MARINE LIGHTING EQUIPMENT

Address inquiries to Special Products Division
American Gas Accumulator Company
1027 Newark Avenue, Elizabeth 3, New Jersey

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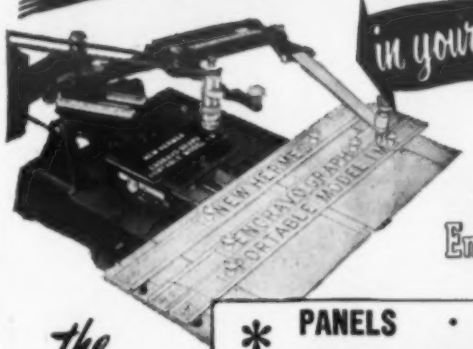
SAVE TIME! do your engraving * in your OWN SHOP



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* PANELS • TOOLS
DIALS • NAMEPLATES

the Only PORTABLE ENGRAVER WITH THESE FEATURES

- Engraves 15 sizes from ONE alphabet
- Covers a LARGER area than any other portable
- Equipped with self-centering holding vise
- **Convertible into TRACER GUIDED ELECTRIC ETCHER for identifying tools and dies**

PORTABLE ENGRAVER described in Folder 1M26
HEAVY DUTY ENGRAVER described in Folder H26

new hermes, inc.
13-19 UNIVERSITY PLACE • NEW YORK 3, N. Y.
The world's largest manufacturer of portable engraving machines

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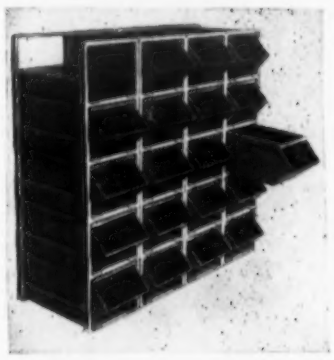
REDUCE HANDLING
of Tools, Parts and Materials



STACKBINS are individual hopper-fronted stacking bins, designed for storage, transportation, assembly.

STACKRACKS are individual units which lock together to form racks of any size, shape or capacity. Stackbins slide like drawers in individual Stackracks

Because Stackbins are portable containers—not fixtures—tools, parts and materials can be carried to departments, from machine to machine, or held in stockrooms without being transferred from one container to another. Stored in Stackracks, any Stackbin is instantly accessible when its contents are needed — without disturbing any other bin.

MOST SIZES IN STOCK

STACKBINS IN STACKRACKS

Manufactured and sold in Canada exclusively by Wickware-Stackbin, Ltd., Ottawa

Write Stackbin Corp., 1081 Main St., Pawtucket, R. I.

STACKBIN SYSTEM
"Stacked and Still Accessible"

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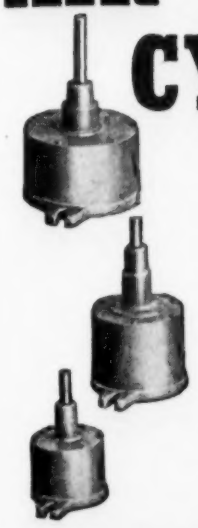
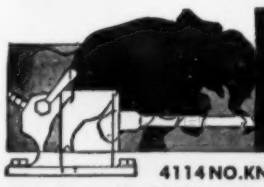
BOOST PRODUCTION WITH
SINGLE-ACTING AIR CYLINDERS



Bore	Strokes Horizontal	Strokes Vertical
1"	5/8"	5/8"
2 1/4"	1" 2" 3"	1" 2"
3"		1/2" 2"
4"	2" 2 1/2"	2"
5"	3"	3"
6"	3"	2"

NEW CATALOG READY!
Complete line of simple, adaptable, compact spring-return air cylinders. Cut costs and speed up production the *modern,* Air Power Way. Write today.



MEAD
SPECIALTIES COMPANY
4114 NO. KNOX AVE., DEPT. N-81-A, CHICAGO 41, ILL.

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Carter

CUTS COSTS WAY DOWN!

CARTER GUIDE LINE LIGHTS

Carter Guide Line Lights throw a straight, black shadow-line across the work. Your guiding light to quick, accurate straight line sawing. Applicable whenever a guide line is needed.

Write— For free illustrated folders

Carter Guide Line Lights are used for straight line sawing in leading plants of all kinds everywhere.

CARTER PRODUCTS COMPANY INC.

69 Mount Vernon Ave., N. W., Grand Rapids 4, Michigan

For more details circle NED-6177 on enclosed inquiry slip

GREATER VERSATILITY

ROCKWOOD TRIPLE ACTION SG-48 WaterFOG NOZZLE

Discharges:
1. High Velocity WaterFOG
2. Straight Stream
3. Low Velocity WaterFOG

Will out-perform any other fog nozzle operating on either high or low pressures for all around fire fighting purposes. Extinguishes fires in flammable liquids and ordinary combustibles faster and with less water. Designed for use in industrial plants, chemical plants, oil refineries, mercantile and public buildings and municipal fire departments, etc. Operates efficiently on 50 p.s.i. at the nozzle.

Approved by Underwriters' Laboratories, Inc. and Factory Mutual Laboratories.

Write for bulletin C-501R

ROCKWOOD SPRINKLER CO.
44 HARLOW STREET WORCESTER 5, MASS.

For more details circle NED-6178 on enclosed inquiry slip

Aluminum Bronze CENTRIFUGAL CASTINGS

may solve your tin bronze worries

Non-Gran supplies both aluminum and tin bronze centrifugal castings. Send blueprints for prompt quotation. American Non-Gran Bronze Co., Berwyn, Pa. Request free booklet.

NON-GRAN

For more details circle NED-6179 on enclosed inquiry slip

TAPPING ATTACHMENT
fits 14 to 15-in. drill presses

Skilled or unskilled operators can perform high production tapping operations without damage to threads with this lead screw tapping attachment for 14 to 15-in. drill presses having 2¾-in. diameter column. Attachment consists of support arm, support arm clamp, screw and washers, lead screw, split nut and mounting screws, split nut washers, lock assembly, Jacobs Rubberflex collet and nut. Split nut and lead screw are interchangeable to allow tapping of variety of threads. Taps of standard sizes from 0 to ¼-in. can be used with collet change. Lead screws and nuts for following pitches are stock items: 20-24-28-32, 36-40-44-48, 56-64, 72-80. Made by **Automatic Methods, Inc.**, Room 203, 42 Walnut St., Newark 1, N. J.

For more details circle NED-6180 on enclosed inquiry slip

GLOSSMETER
measures gloss and reflectance of paint, plastics and ceramics

Improved portable glossmeter for finishes can be used outside laboratory for test fence measurements, for on-the-spot factory checks of production quality and for field surveys in offices, plants and other locations. Five different gloss heads available are designed to duplicate test conditions which have proved useful with different materials. Each unit contains lamp and lens for projecting beam of light on test surface at specified angle. Also included is rheostat and resistor for controlling lamp intensity, push switch for turning lamp on and connecting wire.

Carrying case contains power supply which can be constant voltage transformer or batteries, or both. Two standards supplied with instruments are mounted on door of case where measurement unit can be applied directly to them. Measurement unit, cords and standards fold into case. Measurement units are 60 degrees gloss for paints and plastics, 45 degree reflectance for paints, 75 degree gloss for paper, 85 degree sheen for matte paints, 45 degree gloss for ceramics and 20 degree gloss for high gloss paints and plastics. Made by **Henry A. Gardner Laboratory, Inc.**, Apparatus Div., 4724 Elm St., Bethesda 14, Md.

For more details circle NED-6181 on enclosed inquiry slip

THE MATEER ELECTRIC FILLER HANDLES THEM ALL!

LIQUIDS · OILS · POWDERS · PASTES

COMBINED LIQUIDS AND SOLIDS

1/500 oz. to 2 Pounds
20 to 70 Per Minute
Up to 750° F

SAVE TIME AND MONEY WITH THE MATEER ALL ELECTRIC FILLING HEAD

Totally enclosed, manual or automatic. Accuracy as close as ±½%. Synchronize this self contained filling head with existing production lines and processing systems.

Jacketed and electrically heated hoppers available for handling cold and hot materials up to 750° F. Hot waxes, insulating compounds and asphalts handled without difficulty.

Send full information and samples of material to be tested. Write Dept. 105 for fully illustrated bulletin.

G. DIEHL MATEER & CO.
Lincoln Highway • Devon, Pa.

For more details circle NED-6182 on enclosed inquiry slip

NEW Bulletin 646 Manual Transformer-Type Reduced Voltage Starter with time delay switchover

A-B Quality

Bulletin 646 Reduced Voltage Starter

Here is the first outstanding improvement in manual transformer-type starters in twenty-five years. Bulletin 646 motor starters have an adjustable time delay which prevents careless operators from switching the motor too quickly to full running voltage. It is available in four sizes from 5 hp, 220-440-550 v, to 250 hp, 440-550 v, for 25, 50, and 60 cycles. Write for descriptive bulletin. Allen-Bradley Company, 1334 South Second Street, Milwaukee 4, Wis.

ALLEN-BRADLEY QUALITY MOTOR CONTROL

For more details circle NED-6183 on enclosed inquiry slip

Latest Design POWERFUL 31 TON BACK-GEARED Diamond PUNCH PRESS

* STRAIN GAUGE ANALYZED FOR GREATEST FRAME STRENGTH

Strain-gauge analysis, applied for first time to Diamond punch presses, has resulted in more equal distribution of frame strength with maximum resistance to distortion. Cradle mounted, Diamond 31 Ton frame inclines to most convenient position. Other improvements include Micro-Finished surfaces on gibs, slides and bearings, assuring velvet-smooth ram travel with less friction and longer life. Diamond production tolerances are maintained so close that duplicate parts are interchangeable without hand fitting!

*AVAILABLE FOR FIRST TIME . . . A complete technical report on Diamond Strain-Gauge Analysis of Punch Presses and Operations. Every user of punch presses should obtain a copy! Sent free on request with circular featuring 9 - 14 - 30 and 31 Ton Diamond Punch Presses. Write today!

DIAMOND

DIAMOND MACHINE TOOL CO.
DEPT D • 3429 E. OLYMPIC BLVD., LOS ANGELES 23, CALIF.

MANUFACTURERS OF THE DIAMOND LINE OF PRECISION MACHINE TOOLS AND ACCESSORIES

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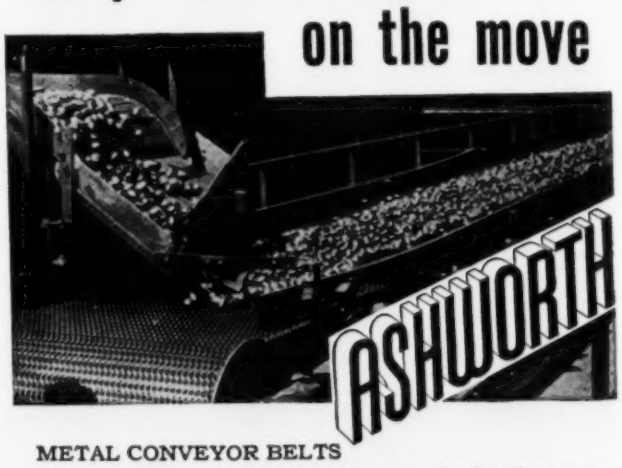
Keep Your Product on the move



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METAL CONVEYOR BELTS can help offset increased production costs by keeping your products on the move . . . increasing your hourly production! The right metal belt for your job means longer operating periods between maintenance shutdowns, longer belt life, greater economy!

Ashworth Engineers and Builds all Types of Wire Belts for Industry.

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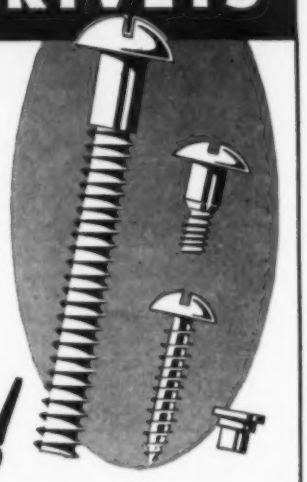
For more details circle NED-6185 on enclosed inquiry slip

Beaver·Bilt

SCREWS STUDS · RIVETS



Standard and Special Types Made for Your Particular Requirements

COLD HEADING PROCESS

Prompt Delivery!

URGENT ORDERS GIVEN SPECIAL ATTENTION
WIRE OR WRITE US ABOUT YOUR NEEDS

Beaver Industries
METAL FASTENER DIVISION
1500 WEST ADAMS STREET, CHICAGO 7, ILL

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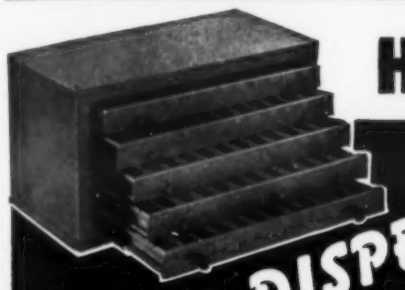

HUOT DRILL DISPENSER

Eliminates Rummaging Through Stacks of Drills

No more running out of drills—your entire stock can be seen at a glance. Each size of drill has its own compartment with rounded bottom for easy selection. You can store dozens of small drills and several large ones in their own compartments. Built-in pricing or inventory system eliminates the need for cost sheets, and will keep a record of drills on hand. Stack two or three cabinets to save space. *Specifications:* 14½" long, 7¼" high, 7¼" deep. Hammerlin baked enamel finish over rugged steel.

Made in three models for fractional, number or letter drills.
Write for Circular

By the makers of HUOT DRILL INDEX

HUOT MANUFACTURING CO.
571 No. Wheeler St., St. Paul W4, Minn.

For more details circle NED-6187 on enclosed inquiry slip

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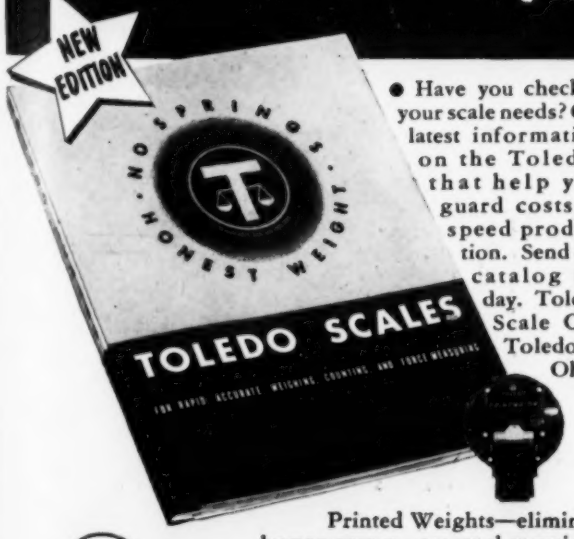
NEW EDITION



● Have you checked your scale needs? Get latest information on the Toledos that help you guard costs... speed production. Send for catalog today. Toledo Scale Co., Toledo 1, Ohio.

Printed Weights—eliminate human errors—assure that weight-cost records are right from the start!

50th ANNIVERSARY 1901-1951

TOLEDO

HEADQUARTERS FOR SCALES

For more details circle NED-6188 on enclosed inquiry slip

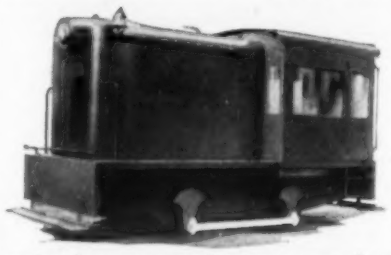
GENERAL PURPOSE PYROMETER for use at temperatures below 800° F

This self-contained portable type LT-840 Xactemp general purpose pyrometer is designed for rapid temperature determination below 800° F. It is enclosed in well-balanced metal case with double-strength glass window and integral easy-grip handle facilitates use in any position. Available for use with instrument are needle, ribbon, surface tip and extension-arm thermocouples which are easily interchangeable without adjustment or recalibration of pyrometer. Portability makes it useful for field, laboratory and production line service including measuring surface temperature of stationary and revolving rolls and surfaces of molds and dies. Made by **Claud S. Gordon Co.**, 3002 S. Wallace St., Chicago 20, Ill.

For more details circle NED-6189 on enclosed inquiry slip

INDUSTRIAL LOCOMOTIVES equipped with torque converter drive

Diesel powered, this series of Davenport industrial locomotives is equipped with torque converter drive and is available in range of sizes and gages to meet individual operating conditions. Gasoline power is also available. Torque converter provides smooth, quiet transition from one speed level to another and eliminates transmission of load shocks and jerks which make for wear and tear on mechanical parts. Illustrated 20-ton locomotive is 24-in. gage and is equipped with No. 6080 General Motors diesel engine and Allison torque converter. Made by **Davenport Besler Corp.**, Davenport Locomotive Div., 2311 Rockingham Rd., Davenport, Iowa.



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TRIPLE-BIT SCREWDRIVER extra blades stored in plastic handle

Interchangeable blades of hardened tool steel in 9/32-in., 3/16-in. and No. 2 Phillips size provide useful range of application for this triple-bit screwdriver. Extra blades are stored in hollow Hercocel plastic handle which is nonflammible and virtually unbreakable. Bits are changed by releasing spring sleeve and inserting freed blade at opposite end of handle to force new bit into position. Obtainable from **J & S Products Co.**, Dept. NED, 2056 E. Fourth St., Cleveland 14, O.

For more details circle NED-6191 on enclosed inquiry slip

NEW MASKING METHOD

for SPRAY PAINTING • PLATING • SAND BLASTING

PRE-CUT SELF-STICKING **QUIK-MASKS**

Hundreds of plants now using Brady QUIK-MASKS are saving time and money **by completely eliminating** costly hand work, use of stop-off materials and metal shields. QUIK-MASKS are **pre-cut to the exact size and shape you need.** Protect name plates, machined parts, plated and polished sections, holes, threads, etc., from paint, plating and cleaning solutions, oils, acids and sand blasting.

QUIK-MASKS are pre-cut from special "SCOTCH" brand plating and masking tapes. They stick without moistening—are quickly applied and removed. Circles, squares, rectangles, hexagons, letters and numerals stocked in many sizes. Nameplates and other specials made to your exact requirements.

FREE SAMPLES

DISTRIBUTORS IN OVER 125 PRINCIPAL CITIES

MANUFACTURERS OF SELF-STICKING PRODUCTS
W. H. BRADY COMPANY
641 E. SPRING STREET • CHIPPEWA FALLS, WIS.

For more details circle NED-6192 on enclosed inquiry slip

Here's why EVERY shop needs Porto-Power

Right—10-ton hydraulic ram with pump and high-pressure hose.

Save up to 9 manhours moving a single machine! Do "1001" other tough jobs. No other equipment can do the work of low-cost "Porto-Power" remotely-controlled hydraulic jacks and attachments! 2, 4, 7, 10, 20 and 50-ton sizes. Buy from leading supply houses. Write for free catalog. Blackhawk Mfg. Co., Dept. P1481 Milwaukee 1, Wisconsin.

TOE-LIFT—Raise from a 1½" low. Replace crowbar methods. **PUSH, OVER ANY SPAN**—Eliminate hazardous blocking up. **PULL PULLEYS**, gears, wheels. No hammering or prying.

BEND PIPE and conduit the easy, profitable, fast way. **BEND RAIL.** Straighten parts. Insert or remove bushings, pins, etc. **FREE BLUEPRINTS** show how to build low-cost press for "Porto-Power".

BLACKHAWK

For more details circle NED-6193 on enclosed inquiry slip

Ask **Sta-Warm** to tailor compound melting equipment to your requirements

YOU'LL then get the right amount of melted compound in the right place at the right time . . . and at lowest over-all long-time cost.

The Sta-Warm Method helps you keep costs down and production up to schedule. There's no obligation on your part if you want to open with a barrage of pointed questions about your own compound melting problem. *Ask Sta-Warm today for recommendations.*

50 gal. compound melter with motor driven agitator and molasses gate valve. Standard Sta-Warm compound melters range from tiny hand held wax melters to 1,000 gal. mother tanks. Accessories and fittings to suit.

Sta-Warm ELECTRIC CO.
130 N. CHESTNUT ST., RAVENNA, OHIO

For more details circle NED-6194 on enclosed inquiry slip

Hear Here!

You can hear clearly in this quiet atmosphere

In the hushed interior of this roomy, airy Burgess-Manning Acousti-Booth you hear easily . . . clearly while telephoning. A thick blanket of sound-absorbent material lines the walls to soak up noise. You can talk in a normal voice without strain.

Doorless construction. Easy to maintain. Movable. Handsome appearance. Wall or floor models.

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Architectural Products Division
5970-C Northwest Highway, Chicago 31, Illinois

Please send me your booklet describing Burgess-Manning Acousti-Booths.

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Firm Name_____
Street_____ City_____ State_____

For more details circle NED-6195 on enclosed inquiry slip

Accurate "know how"

SPRINGMAKING "know how"—and, of course, modern manufacturing facilities—can mean a lot to spring users. The three springs illustrated are good examples of how Accurate can slash spring costs with modern methods. Where previously multiple operations were required in the manufacture of these springs, Accurate produces each in a single operation at a unit price of a fraction of a cent!

We'd like to show those of you who are users of large quantities of springs how we can cut *your* costs. Write or call today.

ACCURATE SPRING MFG. CO.
3805 W. Lake Street Chicago 24, Illinois

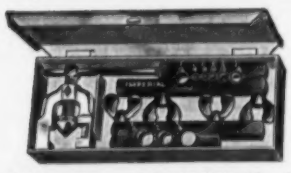
Springs — Accurate Springs — Wire Forms • Stampings

▲ For more details circle **NED-6196** on enclosed inquiry slip ▲

WE'LL SEND YOU THIS WHOLESALE CATALOG FREE!

60% SAVINGS ON SOME ITEMS

OVER 9,000 ITEMS including



Wide Range FLARING Tool
Flares 9 different sizes. One bar flares 1/8", 3/16", 1/4", 5/16", 3/8" and 7/16" OD sizes and the second bar flares 1/2", 5/8" and 3/4". Yoke has "slip on" feature with the inside edges notched to hold in place. Self centering No. 13564B. Complete Wide Range Flaring Tool for 9 different sizes, in metal case.

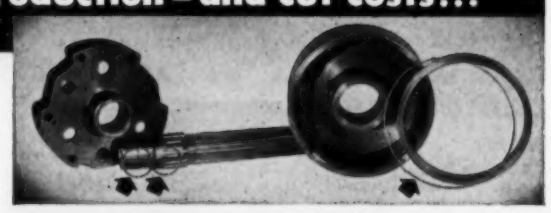
- ELECTRIC MOTOR PARTS
- REFRIGERANTS & FITTINGS
- DEEP FREEZER SUPPLIES
- DEHYDRATORS
- COPPER TUBING
- VALVES
- CONTROLS
- HIGH SIDES
- GAUGES
- TOOLS

WRITE TODAY TO

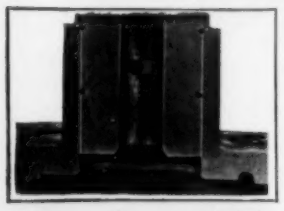
THE HARRY ALTER CO.
1726 S. MICHIGAN AVE., CHICAGO 16
132 LAFAYETTE ST., NEW YORK 13

▲ For more details circle **NED-6197** on enclosed inquiry slip ▲

EASY-FLO helped PACKARD boost Ultramatic Drive production – and cut costs...



To meet the big demand for Ultramatic Drive, Packard stepped up drive production to new high levels and simultaneously cut costs enough to permit an 18% reduction in price. A factor in both results was EASY-FLO brazing.



Cut-away of a cage and shaft assembly joint shows how EASY-FLO penetrates the full joint depth. Black dots are grooves in which alloy rings are pre-placed.

ABOVE—Drive parts and rings of EASY-FLO (arrows) used to join them. Clutch housing and cylinder sleeve at right are induction brazed in 87 seconds. Planetary cage casting and SAE 1151 steel shaft at left are induction brazed in 86 seconds.

BULLETIN 20 TELLS ALL
It's full of valuable brazing information. Write for a copy today.

HANDY & HARMAN 82 Fulton St., New York 38, N. Y.

▲ For more details circle **NED-6198** on enclosed inquiry slip ▲

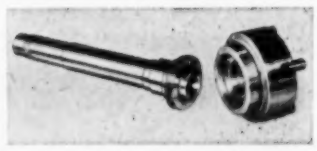
PORTABLE CIRCULAR SAW equipped with 6¼-in. blade

Capable of cutting through 2-in. stock at 45-degree angle, Ramsaw portable circular saw has ¾-hp motor housed in light weight aluminum housing at left of 6¼-in. blade.

Built-in bevel and depth adjustment are integral parts of saw which are easily adjusted and remain accurate. Plastic window in guard allows user to see line of cut at all times. Adjustable rip fence extends to 8 in. Safety trigger switch in handle cuts off motor when operator's finger is released. Lower safety guard which covers blade at all times cannot become clogged with sawdust. Saw is equipped with self-lubricating alloy steel motor shaft and drive gears. Made by **Master-Taper Co.**, 4533 N. Beacon St., Chicago 40, Ill.

▲ For more details circle **NED-6199** on enclosed inquiry slip ▲

SPINDLE NOSE secures chucks and faceplates

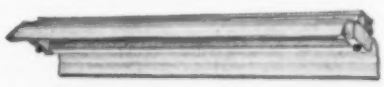


Located and locked with one-half turn of locking ring, Thread-Lock spindle nose is usable on No. 8A toolmaker's lathe. Spindle nose secures chucks, faceplates and other accessories to spindle with repeated accuracy. Rigid and safe, it employs American Standard taper D1-3-in. for precision location in conjunction with Thread-Lock principle. Use of differential screw threads develops great force. Made by **Wade Tool Co.**, 39 River St., Waltham, Mass.

▲ For more details circle **NED-6200** on enclosed inquiry slip ▲

FLUORESCENT LUMINAIRE can be mounted in variety of ways

Offered in 49⅛ and 98¼-in. lengths, Convaire luminaire for two 40-watt fluorescent lamps can be installed individually or in continuous rows, either pendant or surface mounted on stems, chains or messenger cable. It uses GE89G 343 two-lamp small cross-section ballast.



Twin-turret lampholders on 3½ in. spacing prevent turning or falling lamps and make lamp insertion and removal easy. The 60-cycle HPF ballast, sockets and wiring are held in place in wiring channel independent of reflector. Pressure type connector joins luminaires for continuous row lighting. Solid type open-end reflector with solid top and overall efficiency of 83 per cent and apertured top open-end reflector with overall efficiency of 87 per cent with 80 per cent downward and 7 per cent upward are available. Reflectors have Bonderite treated high-bake enamel or porcelain enamel. Made by **Miller Co.**, 10 Center St., Meriden, Conn.

▲ For more details circle **NED-6201** on enclosed inquiry slip ▲

HYDRAULIC VALVES

RIVETT OFFERS 125 MODELS FOR EVERY NEED!

Designed for pressures up to 1500 P.S.I. and furnished for 3000 P.S.I. in certain models, Rivett 4-way Hydraulic Valves are offered in four types of action—standard, spring return, spring centered, and ball detent; five piston designs to meet requirements of any circuit; six types of operation—hand, foot, cam, solenoid, oil pressure, and air pressure; seven sizes—¼", ⅜", ½", ¾", 1", 1¼", and 1½".

Write for Catalog Section 203 showing specifications and drawings of Rivett Hydraulic Valves.

RIVETT LATHE & GRINDER INC.
Brighton 35, Boston, Mass., Department NED-8

▲ For more details circle **NED-6202** on enclosed inquiry slip ▲

SILVER KING The MODERN STROKE COUNTER

MODERN INDUSTRIAL COUNTERS

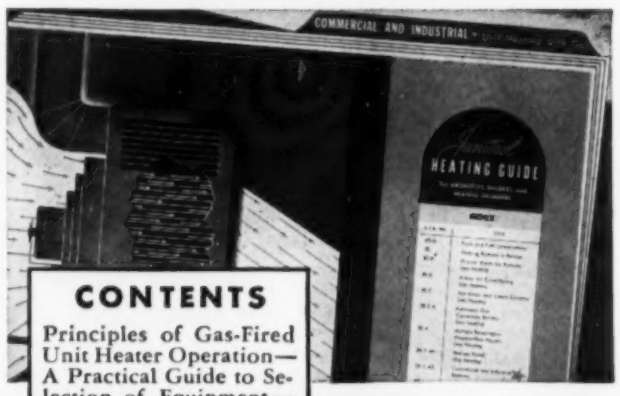
Rugged as an Army tank. Work smooth as a watch.
Precision built—for tremendous wear life. Tamper-proof Reset.
Modern design—streamlined appearance—you can see the quality.
Used by the thousands in Auto and Aircraft Factories, Metal Working, Die Casting, Plastic Molding and Stamping Plants.
See a Silver King and compare. Order sample on approval today.

Send for Catalog describing
Stroke and Revolution Counters
Coil Winding Counters
Electric Counters
Electric Batch Counters
Actuating Switches

Production Instrument Company
700-12 W. JACKSON BLVD., CHICAGO 6, ILL.
Representatives in Principal Cities

▲ For more details circle **NED-6203** on enclosed inquiry slip ▲

VALUABLE GUIDE ON PRACTICAL USE OF UNIT HEATERS for industrial installations



CONTENTS
Principles of Gas-Fired Unit Heater Operation—A Practical Guide to Selection of Equipment—Typical Floor Plan Layouts for Commercial and Industrial Installations—Use of Automatic Controls — Specifications — Combining Heat with Air Conditioning.

WRITE TODAY FOR FREE COPY

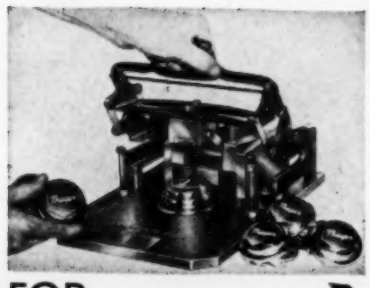
SURFACE COMBUSTION CORPORATION, DEPT. J, TOLEDO, OHIO

Janitrol GAS-FIRED UNIT HEATERS

▲ For more details circle **NED-6204** on enclosed inquiry slip ▲

ACROMARK MEANS "ACCURATE MARKING"

FILL DESIGN AND LETTERING WITH ENAMEL MECHANICALLY



ASK FOR—THE **ACROPRINTER** Reg. U. S. Pat. Off.
MADE IN SEVERAL SIZES
MANUALLY OR POWER OPERATED
CONSTANTLY IMPROVED

The ACROMARK Company
WRITE TO—7-11 MORRELL ST., ELIZABETH 4, N. J.
"THE ORIGINAL MARKING SPECIALISTS"

▲ For more details circle **NED-6205** on enclosed inquiry slip ▲

Link-Belt CAR SPOTTER releases manpower for other jobs

Get faster car spotting

Reduce switching and demurrage time to a minimum. One man with two or three turns of rope around the motor-driven capstan will handle up to six loaded railroad cars. Available with 5 or 10 hp, integral or separate motors, stationary or portable.

Link-Belt offers a complete line of car spotters... also specializes in drum type puller applications.

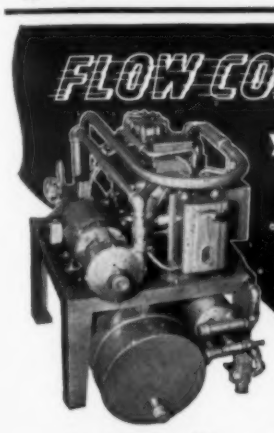
12,195-C

WRITE TODAY
For 16 Page Bulletin 1992-A

LINK-BELT COMPANY:
Chicago 8, Indianapolis 6, Philadelphia 40, Atlanta, Houston 1, Minneapolis 5, San Francisco 24, Los Angeles 33, Seattle 4, Toronto 8, Springs (South Africa). Offices, Factory Branch Stores and Distributors in Principal cities.

For more details circle NED-6206 on enclosed inquiry slip

FLOW COLD* answers your temperature control problems



You get increased production and lower costs for efficient industrial process temperature control when you specify ACME FLOW COLD*

*Trade Mark

for these USES	with these ADVANTAGES
coolant cooling	economical
solution cooling	compact
production welding	rugged
mold cooling	complete
laboratory cooling	saves water by recirculation
cooling chemicals	factory assembled and tested
cooling drinking water	easy to install
air conditioning plants	easily controlled
or offices	ready to connect

Let an ACME Engineer help you solve your temperature control problem. Write today, for more information on your cooling problem. Address Dept. FC.

ACME PRODUCTS
ACME INDUSTRIES, INC.
JACKSON, MICHIGAN

Continuously serving the Refrigeration and Air Conditioning Industry since 1919

For more details circle NED-6207 on enclosed inquiry slip

Generalift ★★★★★
PALLET BOXES

CUT MATERIALS HANDLING COSTS

REDUCE STORAGE COSTS

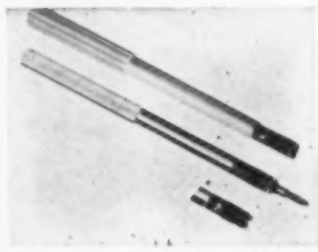
SEND FOR FREE BOOKLET TODAY

GENERAL BOX COMPANY..
★★★★★ engineered shipping containers

GENERAL OFFICES: Illinois & Dearborn Streets, Chicago 10, Ill.
DISTRICT OFFICES AND PLANTS: Cincinnati, Denville, N. J., Detroit, East St. Louis, Kansas City, Louisville, Milwaukee, Sheboygan, Winchendon. Continental Box Company, Inc., Houston, Dallas. General Box Company of Mississippi, Meridian, Miss.

For more details circle NED-6208 on enclosed inquiry slip

SCREW STARTERS offered in five handle lengths



Problem of starting screws in hard-to-reach places is simplified by slot-head screw starters which have gripping head to hold screws firmly. Screw is released by turning handle. Tools are offered with metal handles in lengths of 2½, 5, 9 and 15 in. and with nylon handles in 6 and 9-in. lengths. No. SS-34 set includes one each of the four metal sizes. Made by **Bonney Forge & Tool Works,** Green & Meadow Sts., Allentown, Pa.

For more details circle NED-6209 on enclosed inquiry slip

DRY CHEMICAL EXTINGUISHER has 12 to 15-ft operating range

Operating range of this type 4-B dry chemical fire extinguisher is 12 to 15 ft and its effectiveness has been increased by incorporation of rubber hose and improved nozzle. It has received a B2, C2 rating from Underwriters' Laboratories and features ease of operation, flexibility in fighting overhead and ground-level fires and ample effectiveness even when manned by inexperienced personnel. Unit has 4-lb dry chemical capacity which is ejected through self-closing nozzle that produces fan-shaped stream pattern. Extinguisher is pressurized by 1½-oz carbon dioxide cylinder, and each unit is subjected to 600-psi hydrostatic test. Made by **Ansul Chemical Co.,** Fire Extinguisher Div., 1 Stanton St., Marinette, Wis.

For more details circle NED-6210 on enclosed inquiry slip

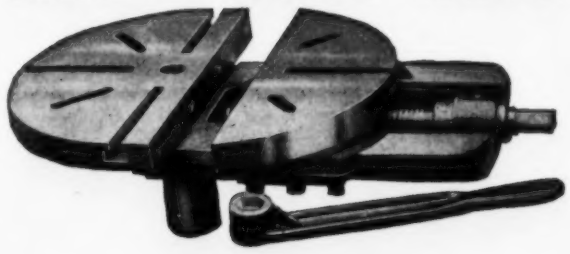
METAL DISINTEGRATOR has spindle actuated downward

Spindle of this metal disintegrator for removing broken drills and taps is actuated downward by solenoid to assure steady contact with metal at all times regardless of position of operating head. Electrical energy supplied to operating head is rectified to direct current, and head is constructed so that contact is made 60 times per second at alternating current peak of positive half of sine wave. Typical average cutting speeds are as follows: disintegrate ⅛-in. drill 2 in. deep in 1½ minutes; 27/64-in. reamer 1¼ to 1½ in. deep in 2 minutes; and cut 3/16-in. hole through 3/32-in. deep hardened steel (62 Rockwell) in 10 seconds. Made by **Electro Arc Mfg. Co.,** 5932 Commonwealth Ave., Detroit 8, Mich.

For more details circle NED-6211 on enclosed inquiry slip

Try the MODERN

SAFETY DRILL TABLE



For Faster, SAFER Work in Your Maintenance Department

Combines a drill table, a vise, a set of parallels and V block. No more lost fingers from hand held jobs that slip. No more 30 minute set-ups for a 1 minute drilling operation. Made in 6 sizes from 8" to 28" dia. We guarantee each Safety Drill Table will save its cost on labor alone in 6 months, to say nothing of plant down time when vital maintenance is delayed even a few minutes.

FREE TRIAL OFFER

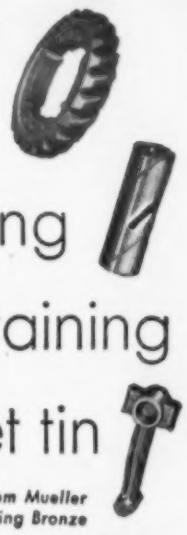
WRITE FOR FREE FOLDER

Shows many typical set-ups and use on radial drills. Complete specifications on all models. Covers MONEY BACK GUARANTEE and 30 DAY FREE TRIAL OFFER.

MODERN MACHINE TOOL CO.
Jackson, Michigan

For more details circle NED-6212 on enclosed inquiry slip

MUELLER BRASS CO.



600 series a better bearing bronze containing no hard-to-get tin

Four typical parts forged from Mueller Brass Co. "600" series Bearing Bronze

If you use gears, connecting rods or other parts of bearing metal in your products, it will pay you to investigate Mueller Brass Co. "600" series, a forgeable bronze that *contains no critical tin.* This bearing metal outperforms phosphor bronze and other bearing metals and will save you money in your applications. "600" series alloys can be forged into relatively complicated shapes . . . have low coefficient of friction . . . high resistance to corrosion and a tensile strength 2½ times greater than cast phosphor bronzes. There is a "600" series alloy with the properties to fit your bearing metal needs . . . write today for further facts.

MUELLER BRASS CO. PORT HURON 26, MICHIGAN

64-B

For more details circle NED-6213 on enclosed inquiry slip

STEVENS SELENIUM RECTIFIER FOR PLATING AT HIGHER CURRENT DENSITIES

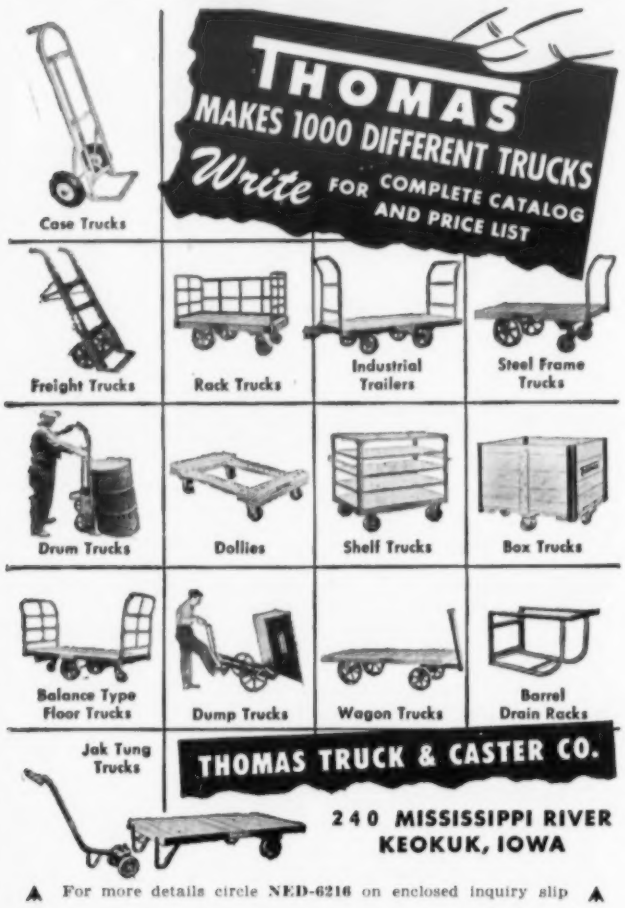
The Stevens Selenium Rectifier is a precision-built rectifying unit designed to stand up under hard usage at high voltages. It is a compact unit which incorporates approximately 6,000 square inches of rectifying area within its sturdy steel cabinet. Stevens Selenium Rectifiers are easy to install and operate—they're economical in both initial cost and operation—since they have no moving parts, maintenance is eliminated. They're adaptable to all types of circuits and loads. Available in three capacities. Ask your Stevens representative for detailed information or write for literature to *Frederic B. Stevens, Inc., Detroit 16, Michigan.*

FREDERIC B. STEVENS INCORPORATED
DETROIT 16, MICHIGAN

For more details circle NED-6214 on enclosed inquiry slip

6CR51

For more details circle NED-6215 on enclosed inquiry slip



▲ For more details circle **NED-6216** on enclosed inquiry slip ▲

OSCILLATING TROUGH CONVEYOR
readily handles bulk materials whether hot, dry, oily or jagged

Foodstuffs, chemicals and other materials where cleanliness, contamination or corrosion are factors as well as hot, sharp, jagged or oily materials are handled without wear on this Flexmount oscillating trough conveyor. Escape of dust or gases can be eliminated by use of metal cover with flexible connections at loading and discharge points.

One-piece high-side trough is supported on simple flexible members which serve as springs to absorb energy of trough movement at end of stroke. Normally 4-in. deep, trough can be furnished in standard widths of 8 to 24 in. and made of 10 or 12-gage steel, stainless, corrosion resisting steel or other material. Lengths can range up to 100 ft.

Oscillating motion is imparted to trough by roller-bearing constant-stroke eccentric. Because it oscillates at natural frequency of mounts, only the horsepower needed to convey material is required. Dividers can be installed to convey several materials simultaneously, and discharge can be at any desired point. Uniform, continuous flow of any loose bulk material is assured regardless of overloads or surges. There is no degradation of thin or brittle material. Made by **Link-Belt Co.**, Dept. NED, 307 N. Michigan Ave., Chicago 1, Ill.

▲ For more details circle **NED-6218** on enclosed inquiry slip ▲

HYDRAULIC GRINDING MACHINES
new headstock, lower bed featured

Improvements in 10 and 14-in.-L plain hydraulic grinding machines contribute to increased operating convenience. Changes include headstock powered by 1 hp ac motor

with built-in magnetic brake, power transmitted entirely through V-belts, eccentric arrangement for primary countershaft which provides a way to adjust belt tension and change belt on four-step pulley. Bed is 2 in. lower, being 39½ in. from floor line to centers. Grinding wheel collets are designed for 12-in. hole wheels. Machine retains Filmatic grinding wheel spindle bearings, infinitely variable table traverse speeds from 3 to 220 ipm, wheelhead cross slide movement in increments as small as 0.0001-in. and dog-controlled table reciprocation from 3/32-in. to full table stroke. Maximum swing over table is 10 15/16 in. Made by **Cincinnati Grinders Inc.**, Marburg & Disney Sts., Cincinnati 9, O.

▲ For more details circle **NED-6219** on enclosed inquiry slip ▲

Rugged! Rigid! Accurate! Economical!

LOW COST OPERATION HIGH PRODUCTION MILLING MACHINES

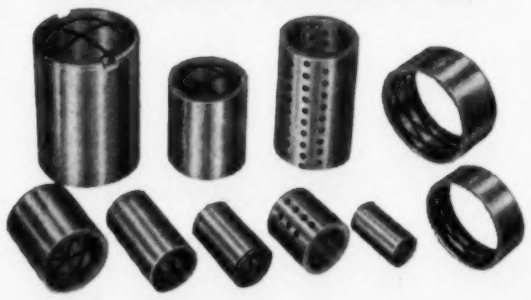
Send for circular describing various models of power and hand feed millers and attachments.

The BURKE MACHINE TOOL CO.

A Division of the U. S. Burke-Machine Tool Co.
East 72nd Street Cincinnati 16, Ohio

▲ For more details circle **NED-6217** on enclosed inquiry slip ▲

GRAPHITED OIL-LESS BRONZE BEARINGS



GRAPHITED — Only PURE GRAPHITE is used, with a specially developed and tenacious binder.

OIL-LESS — Requires no further lubrication during the life of the bearing.

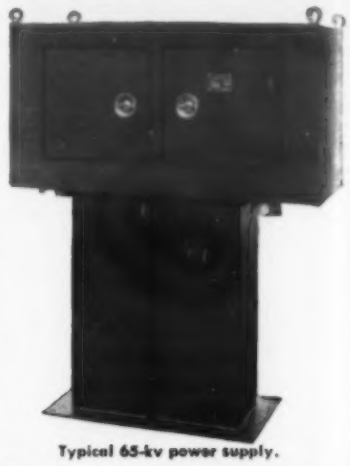
PRESSURE — The Graphite Composition is applied under pressure by hydraulic or other adequate means, then baked at high temperature for permanence.

IMPREGNATED — Impregnated in such a manner as to secure complete surface coverage, giving the working effect of a metal saturated with lubricant.

BRONZE BEARINGS, INC.
340-344 NORTH AVENUE — EAST
CRANFORD, N. J.

▲ For more details circle **NED-6220** on enclosed inquiry slip ▲

D-C power supplies for 10,000 to 1,000,000 volts and higher



Typical 65-kv power supply.

Manufacturers and developers of high-voltage equipment are invited to take advantage of General Electric's extensive experience in building power supplies for such diversified applications as:

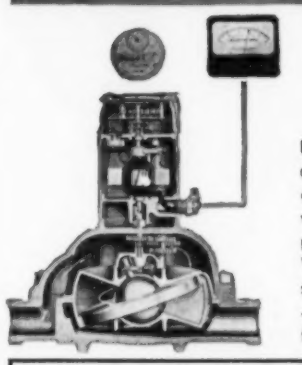
Food Processing • Precipitation, separation and paint spraying • Nucleonics • Radar, radio and X-ray • Research and development laboratories.

Standard ratings range from 10 to 1000 kv with current ratings from 7.5 to 1000 ma. Higher ratings can be built to specifications. Inquiries should include any limiting dimensions and functional requirements such as voltage range, per cent accuracy, and allowable ripple. Address Room 43-328A, Apparatus Department, General Electric Company, Pittsfield, Mass. 401-90

GENERAL ELECTRIC

▲ For more details circle **NED-6221** on enclosed inquiry slip ▲

Remote indication and control of liquid flow



Hays VERIFLOW meter accurately measures, indicates, and totals the flow of corrosive and hard-to-meter liquids without using weigh tanks, orifice plates, or gage sticks.
With the Hays VERITROL you simply set a knob at the rate of flow desired . . . then, the VERITROL *controls* the flow of liquid at that set-rate.

for corrosive liquids
Acetic Acid, Aluminum Potassium Sulphate, Ammonia, Calcium Compounds, Carbolic Acid, Formaldehyde, Fruit and Vegetable Juices, Hydrogen Peroxide, Phosphoric Acid, Potassium Hydroxide, Sodium Compounds, Sulphuric Acid (concentrated), Stearic Acid, and many others

Send for a complete description of Hays Veriflow Meter and Veritrol. Bulletin 48-766

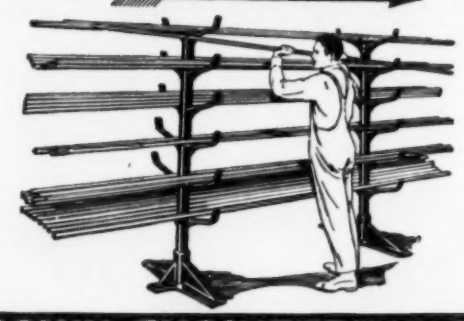
THE HAYS CORPORATION
MICHIGAN CITY 15, INDIANA

▲ For more details circle **NED-6222** on enclosed inquiry slip ▲

SPEEDS UP STOCK-ROOM SERVICE

The BROWN TIME-SAVING RACK saves the time previously lost end-hauling each bar of stock its entire length from the old-style, closed-side Rack, the Brown Rack requiring but a few inches of side movement. Each length, width and thickness of stock is displayed in goldfish visibility for instant selection. Workmen waiting for stock are served without waste of time, and returned to their production machines to turn out a maximum of output. Any time you require additional storage space, all you need do is to add more units. If you want to relocate it at any time, you can do so for it is unattached to the building. It is a simple, durable article made of metal in five styles. It can't burn, warp, sag or twist: depreciation is practically nil. SEND FOR BULLETIN No. 26-D DESCRIBING—

BROWN'S *QUICK-SERVE* RACKS



BROWN ENGINEERING CO.
129 N. THIRD ST. READING, PENNA.
RACKS • VISES • CLUTCHES • COUPLINGS

▲ For more details circle **NED-6223** on enclosed inquiry slip ▲

SLY "ECONOMY" DUST FILTERS
Small, Compact, Inexpensive

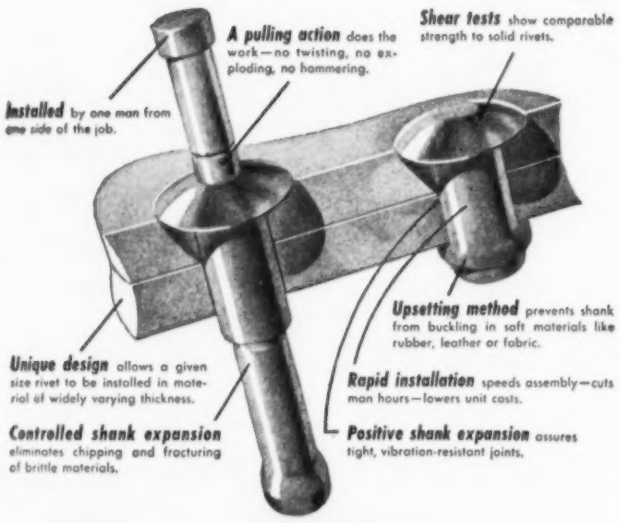
The Sly ECONOMY Dust Filter is especially suited for collecting the dust from individual machines or from a small group of dust points in close proximity to each other. It is compact yet it has an abundance of filter cloth which helps to maintain a uniform suction.

This filter offers: (1) *High Efficiency* with complete dust collection; (2) *Low Power,* a 3 HP motor will handle 1400 cu. ft. per minute; (3) *Long Life* because a very liberal amount of filter cloth is used; (4) *Compactness* because the filter cloth occupies a minimum of space; (5) *Effective Bag Cleaning* by means of a simple shaking device.

Made in four standard sizes, to filter dust out of 300 to 1400 cu. ft. air per minute. Write **The W. W. Sly Manufacturing Co.,** 4748 Train Avenue, Cleveland 2, Ohio. There are experienced Sly engineers in New York, Chicago, St. Louis, Philadelphia, Minneapolis, Birmingham, Cincinnati, Lansing, Los Angeles, Rochester, Toronto. Advt.

▲ For more details circle **NED-6224** on enclosed inquiry slip ▲

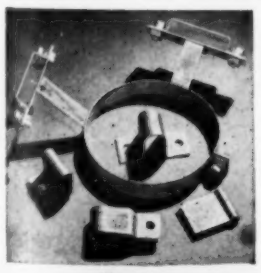
Here's why CHERRY RIVETS *make the hard jobs easy*



Cherry Rivet
COMPANY
A Division of Townsend Company
231 WINSTON STREET, LOS ANGELES 13, CALIFORNIA

▲ For more details circle **NED-6225** on enclosed inquiry slip ▲

THE FAMOUS MULTIFORM BENDER CUTTER



Produces Without Special Tooling — Saves Die Costs Saves on Expensive Presses

The illustration at the left shows just a few pieces produced on our famous Multiform Bender-Cutter. This efficient machine is useful in all lines of trade.

NO. 5 AIR MODEL

ALSO BUILT IN LARGER SIZES

HAND OPERATED MODELS AVAILABLE

FIVE-IN-ONE-TOOL
IT BENDS FLAT AND ROUND STOCK INTO ANY SHAPE. CUTS AND PUNCHES FLAT STOCK

J. A. RICHARDS CO. MYRTLE & PITCHER STS. KALAMAZOO, MICHIGAN

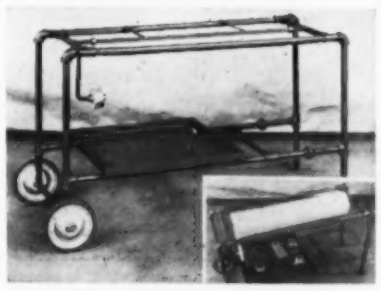
▲ For more details circle **NED-6226** on enclosed inquiry slip ▲

HARDNESS TESTING MACHINE
incorporates 24-in. throat depth

This hydraulically operated model AP-1 brinell hardness testing machine incorporates 24-in. throat depth and is mounted on wheels so that it can be rolled out of way when not in use reaching out over conveyor. Lower anvil is top of hydraulic piston which rises as load is applied to take pressure off conveyor and this feature tends to keep plate level while test is being made. Operating cycle is controlled by snap switch mounted on side of machine which is turned 'ON' to apply 3000-kg load and 'OFF' to release load. Machine is made to order so that anvil height will conform to customer's conveyor height. Made by **Steel City Testing Machines, Inc.,** 8842 Livernois Ave., Detroit 4, Mich.

▲ For more details circle **NED-6227** on enclosed inquiry slip ▲

INDUSTRIAL MASKER
dispenses paper masking aprons



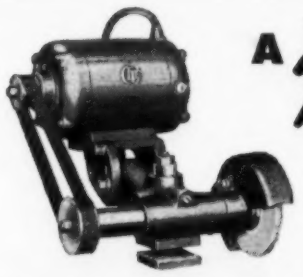
Blueprints and photographs explaining how to make this industrial masker for easy dispensing of paper masking aprons up to 36 in. wide, with masking tape pre-applied, are being made available. Masker can be built with about $25 worth of materials and about 6 hours of labor. Its use facilitates finishing, refinishing two-tones and touch up paint spraying. Accompanying folder lists materials needed for construction. Announced by **Industrial Tape Corp.,** Dept. R, New Brunswick, N. J.

▲ For more details circle **NED-6228** on enclosed inquiry slip ▲

HEAT EXCHANGER TUBE CLEANER
for ⅜ to 3-in. straight tubes

Deposits from even completely plugged heat exchanger tubes are removed with model TP-301 tube cleaner. Driven by positive air motor, this drill type tool scavenges with air or water and operates on air pressure as low as 50 psi. Capacity is ⅜ to 3-in. OD tubes. Hollow shafting is available in one piece up to 20 ft or in sectional threaded lengths. Minimum practical working headroom is 5 ft. Made by **Thomas C. Wilson, Inc.,** 21-11 44th Ave., Long Island City 1, N. Y.

▲ For more details circle **NED-6229** on enclosed inquiry slip ▲



A "Must" FOR EVERY LATHE

Mount THE CINCINNATI Ball Bearing Tool Post Grinder on the compound rest of any lathe with a 9" swing, or larger, and you're ready for fast, convenient grinding of lathe centers, cutters, reamers, rolls and dies.

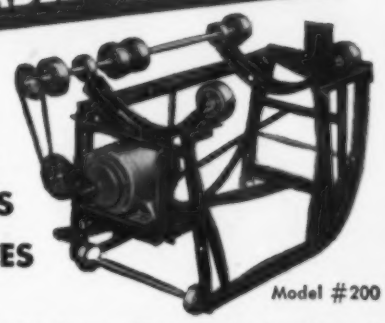
THE CINCINNATI will grind work within 2½" of the maximum lathe swing . . . it can be swivelled around the clamping bolt . . . spindle height is readily changed. Adjustable motor mount makes it easy to maintain proper belt tension. Send today for Bulletin 51-HD with detailed information.

Manufacturers of a complete line of ELECTRIC DRILLS, GRINDERS, BUFFERS, PORTABLE TOOLS, AIR MASTER DUST COLLECTORS.

TRADE *The Cincinnati* MARK
THE CINCINNATI ELECTRICAL TOOL CO.
Division of THE R. K. LeBLOND MACHINE TOOL CO.
CINCINNATI 8, OHIO, U. S. A.

▲ For more details circle **NED-6230** on enclosed inquiry slip ▲

MORSE PORTABLE ROTATOR



- MIXES
- CLEANS
- TUMBLES

Model #200

A retractable caster frame offers simpler handling of containers with the Morse Rotator. Two Neoprene Drive Wheels prevent creeping. Four drive wheels give positive driving action and two idler wheels with Torrington Needle Bearings make the Morse Rotator a smoothly operating unit. Tipping lever included with each Rotator. Write for free folder showing complete Morse line.

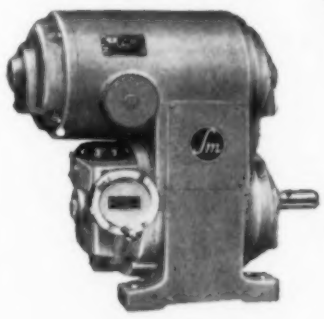
Less motor and drive—Wt. 75 lbs. $147.75
Complete with motor—Wt. 155 lbs. $228.25

MORSE *MANUFACTURING CO.,* **INC.**
127 Dickerson Street Syracuse 2, N. Y.

▲ For more details circle **NED-6231** on enclosed inquiry slip ▲

power modernization
lowers production costs . . .

with control of speed



Ask for your copy of pictorial bulletin No. C-68, showing Sterling Electric Power Drives Turning The Wheels of Industry.

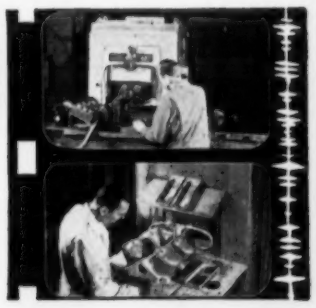
STERLING
SPEED-TROL
. . . Gives You Variable Speed Control Necessary For:
- **PROCESS CONTROL OF:** Temperature—viscosity—level—pressure—flow—etc.
- **TIME CONTROL OF:** Baking—drying—heating—cooking—pasteurizing—soaking—chemical action—etc.
- **EQUIPMENT ADAPTATION TO:** Load variation—sequence synchronization. Size—tension—hardness or shape of materials to be processed—machined—conveyed—blended—mixed—etc.
- **VARIATIONS IN:** Quality—quantity—operators' abilities—etc.

STERLING ELECTRIC MOTORS

Plants: New York 51, N. Y.; Los Angeles 22, California; Hamilton, Canada; Santiago, Chile. Offices and distributors in all principal cities.

▲ For more details circle **NED-6232** on enclosed inquiry slip ▲

ALLIS-CHALMERS Induction Heaters
New Film SHOWS HOW TO CUT COSTS



Annealing • Brazing • Soldering • Hardening

GET IDEAS on improving products, speeding production, cutting costs. New 16 mm. color-sound film shows on-the-job applications of induction heating.

See how one manufacturer raised production to 3600 units per hour! See many other case histories.

Arrange for free showing — fill out coupon below. Get new solutions for heating problems. Send the coupon today!

ALLIS-CHALMERS A-C

ALLIS-CHALMERS, 918A SO. 70 ST.
MILWAUKEE, WIS.

☐ Please send print of 16 mm. color-sound film "Induction Heating, Industry's Modern Tool."
☐ Please send me booklet describing film.

Name ..... Title .....
Firm ..... Address .....
City ..... State A-3433

▲ For more details circle **NED-6233** on enclosed inquiry slip ▲

GOOD.....FOR ALL PRESSURES

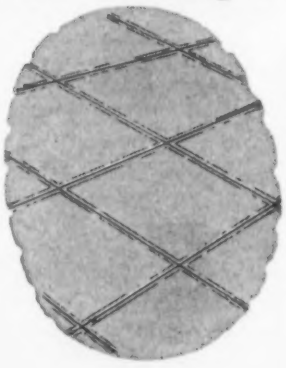
Yarway Impulse Steam Traps are suitable for any pressure up to specified maximum *without change of valve or seat.* Types available up to 1500 lbs. Simplifies installation and maintenance. Over 650,000 Yarway Traps already *proved on the job.* Sold by over 200 distributors. Bulletin T—1740 free.

YARNALL-WARING CO. 131 MERMAID AVENUE, PHILA. 18, PA.

For more details circle **NED-6234** on enclosed inquiry slip

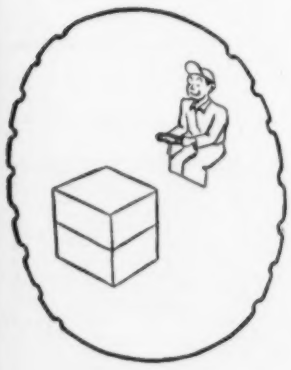
Mono-Cushions

cut the cost of bumps



CUSHION THE FLOOR

Big, burly Mono-Cushions soak up jolts and jars both ways, protect floors from the pounding a heavily laden truck can dish out.



CUSHION THE LOAD

Mono-Cushions are saving hundreds of users plenty of money by reducing load breakage, giving both load and driver a smooth ride.

CUSHION THE TRUCK

Mono-Cushions can reduce truck maintenance as much as 40 per cent, because they absorb more shock and shock load than any other type of industrial tire, size for size.

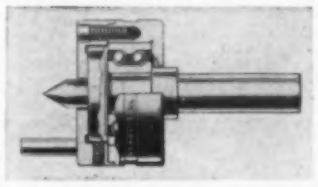
YOUR BEST SOURCE FOR TIRES is the manufacturer of your equipment. He can supply you, through his service branches, with the type of Monarch Tire engineered for your equipment.

THE MONARCH RUBBER COMPANY
200 LINCOLN PARK HARTVILLE, OHIO

SPECIALISTS IN INDUSTRIAL SOLID TIRES AND MOLDED MECHANICAL RUBBER GOODS

For more details circle **NED-6235** on enclosed inquiry slip

ANTIFRICATION CENTER
for grinding expansion hand reamers



Reamer teeth on expansion type hand reamers can be correctly ground with Red-E special adjustable floating type antifriction center so that they are concentric with front pilot surface. Operation is performed in universal tool and cutter grinder, eliminating cylindrical grinding operation. Amount of tooth stock ground per sharpening is minimized and reamer life correspondingly increased. Centers are available in various tapers or straight shank sizes and can be adapted to any type universal tool and cutter grinder. Made by **Ready Tool Co.,** 554-D Iranistan Ave., Bridgeport 5, Conn.

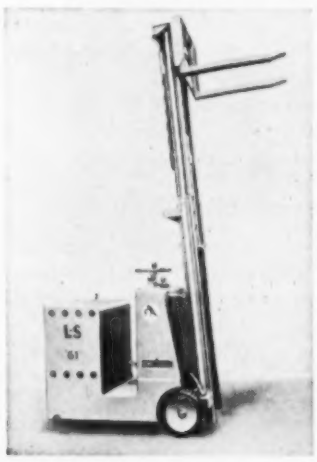
For more details circle **NED-6236** on enclosed inquiry slip

EQUIPMENT WASHING BRUSH
two sizes and extension fit any hose

Flexible rubber back of Flexy brush reaches into corners and crevices for good cleaning action without endangering paint surface or scratching finish. Over 60 water holes give steady flow of water. In addition to use for washing industrial vehicles, brush can be used for washing such large surfaces as stone floors and tiled walls. It has high pressure tooled nozzle for cleaning wheels and chassis. Standard and Jumbo sizes are offered. Both attach to any hose and can be fitted to 3-ft aluminum extension handle. Introduced by **Gemexco, Inc.,** Dept. NED-8, 2 Columbus Circle, New York, N. Y.

For more details circle **NED-6237** on enclosed inquiry slip

ELECTRIC FORK TRUCK
designed for warehouse operation

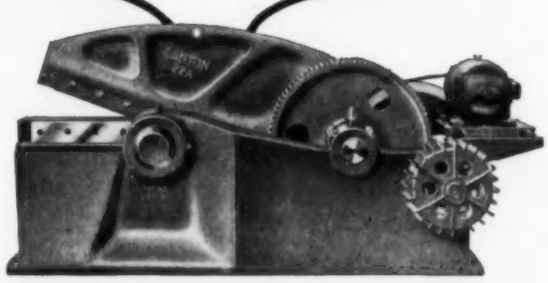


Capable of carrying and high-stacking up to 48-in. long 3000-lb loads, Space-Master 61 Standrive electric fork truck has three-ram free lift mast design with 127 in. of fork elevation and 65¼ in. free lift with 83-in. collapsed height. Truck can also handle 32-in. loads weighing up to 4000 lb. Pallets 40 in. long can be right angle stacked in 10-ft aisle. Operator has good visibility and can step off either side to perform supplemental duties. Truck has center control for maximum safety. Hydraulic pump and pump motor, located beneath operator's 'corridor,' are easily reached for servicing. All vital parts can be inspected and serviced from top of truck. Made by **Lewis-Shepard Products Inc.,** 195 Walnut St., Watertown 72, Mass.

For more details circle **NED-6238** on enclosed inquiry slip

"CANTON" ALLIGATOR SHEARS

for industrial shearing as well as scrap preparation.



for production cutting . . .
CANTON Alligator Shears are manufactured in a wide range of sizes for commercial production shearing of bars, flats, rounds, angles, etc. Machines are available with or without stop motion clutch.

for scrap shearing . . .
CANTON Alligator Shears have the advantages of a self contained unit—No Foundation Required—Adjustable knife seat eliminates shimming of blades. Made in a complete range of sizes and models for every shearing need.

The HILL ACME Company
"CANTON" DIVISION 1201 West 65th St CLEVELAND 2, OHIO

Bulletin N-51 Gives Complete Details.

For more details circle **NED-6239** on enclosed inquiry slip

STANDARDIZE *with our* OHIO STOCK DISTRIBUTORS

In every industrial center across the country there is an Ohio Gear distributor, no further away than your phone, ready to supply you with Ohio "standardized" gears and speed reducers.

Whether your need is for a spur, helical, bevel, worm or worm wheel type gear, or for speed reducers from 1/6 to 10 HP in ratios from 3 to 1 up to 3000 to 1; chances are your Ohio Gear distributor may be able to supply you from STOCK.

The Ohio Gear representative serving you is qualified to help you solve your power transmission problems through engineering with "standardized" stock gears and speed reducers. This saves you money and time.

Ohio Gears and Speed Reducers have been engineered to perform to your satisfaction.

ESTABLISHED 1915
THE OHIO GEAR COMPANY
1320 EAST 179TH STREET • CLEVELAND 10, OHIO

OHIO GEARS

For more details circle **NED-6240** on enclosed inquiry slip

Ever See a Car Without Fasteners?

Approximately 2-1/2% of the steel produced is used to fasten the rest together!

You wouldn't give much for a car like this, would you? Yet that's the way it would look without fasteners.

Yes, fasteners *are* important. That's why it pays to select bolts and nuts for your product as carefully as you select the finish.

Lamson & Sessions

The LAMSON & SESSIONS Co. . General Offices: 1978 West 85th Street • Cleveland 2, Ohio
Plants at Cleveland and Kent, Ohio • Birmingham • Chicago

For more details circle **NED-6241** on enclosed inquiry slip

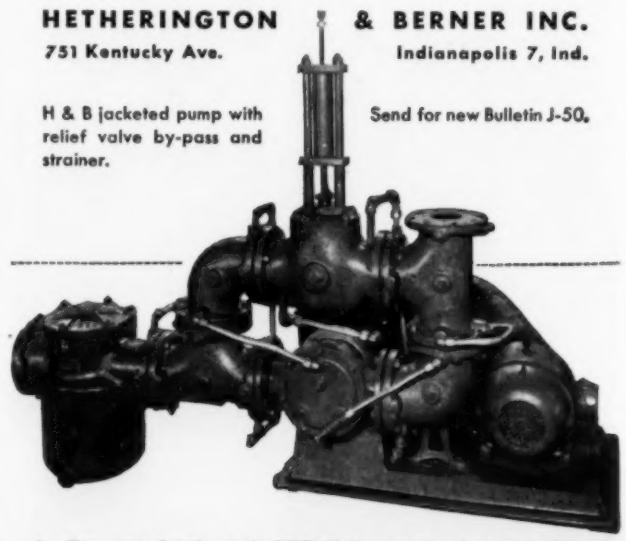
Jacketed Pumps
for handling viscous materials

Pumps for H & B Jacketed Systems are made especially for us to fit the flanges of H & B jacketed fittings. These pumps are engineered to provide maximum efficiency in handling viscous materials. H & B fittings are designed with a double wall forming an all-over jacket, completely insulating the interior line, with no dead spots or unprotected places.

HETHERINGTON & BERNER INC.
751 Kentucky Ave. Indianapolis 7, Ind.

H & B jacketed pump with relief valve by-pass and strainer.

Send for new Bulletin J-50.



For more details circle **NED-6242** on enclosed inquiry slip

REEVES BROTHERS, Inc., 54 Worth Street, New York 13, N. Y.

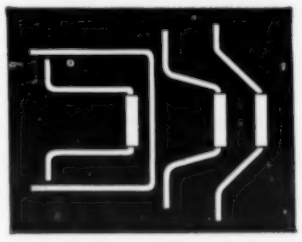
▲ For more details circle NED-6243 on enclosed inquiry slip ▲

DUAL RIVETING MACHINE
adjusts from 2½ to 18-in. centers

Consisting of two 8-in. model R Rivitors mounted face-to-face on common base, this Dual Rivitor is adjustable for rivet spacings ranging from 2½ to 18 in. center-to-center. One motor drives both flywheels that are synchronized by combination gear and chain drive arrangement. Both clutches are tripped by solenoids connected to single foot switch. Machine is equipped with 10-in. hoppers and tooled to automatically feed and set two ¼-in. diameter x ⅝-in. long wagon box head rivets at a time in elevator chain and raddle assemblies. Made by **Tomkins-Johnson Co.**, 609 N. Mechanic St., Jackson, Mich.

▲ For more details circle NED-6246 on enclosed inquiry slip ▲

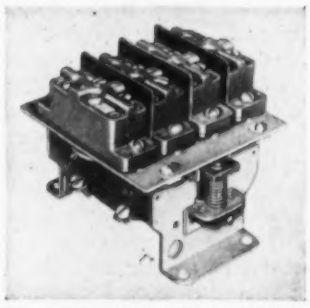
AMMUNITION BOX HARDWARE
made in various lengths and widths



Bearing government approval, these steel handles and U-bolts for wood and steel ammunition boxes are available with or without wing nuts in various lengths and widths. Although styles shown are being produced, other styles and sizes can be made to specifications. Made by **Washburn Co.**, 26 Union St., Worcester 8, Mass.

▲ For more details circle NED-6247 on enclosed inquiry slip ▲

FOUR-POLE RELAY
is normally-open or normally-closed



Class 8501 type PO4 relay has four normally-open and four normally-closed contacts, allowing circuit arrangement to be changed from normally-open to normally-closed by changing incoming wires to different terminals. When used in circuits of same polarity four open and four closed contacts are available. All terminals are exposed and are accessible. Each of four snap-action silver-to-silver contact mechanisms is self-contained in melamine case and can be removed by loosening two screws. Relay is rated 10 amp noninductive, with inductive ratings of 5 amp at 600 v or 15 amp at 110 v. Coils are available for 6 to 600 v, 25 to 60 cycles. Made by **Square D Co.**, 4045 N. Richards St., Milwaukee 12, Wis.

▲ For more details circle NED-6248 on enclosed inquiry slip ▲

BLACK DIAMOND
PRECISION DRILL GRINDER

DEFENSE PRODUCTION NEEDS PLENTY OF SMALL SHARP DRILLS—ACCURATELY GROUND FOR DRILLING PRECISION HOLES. BLACK DIAMOND IS YOUR ANSWER

Yes—Black Diamond Grinders cut 50% and more on drill sharpening and drilling costs. They sharpen small drills quickly—and so accurately that drill breakage and work spoilage rarely happen.

Anyone can operate a Black Diamond Grinder—can keep all small drills sharp—and true centered with smooth lips accurately ground to the same length, correct angle and clearance for fast, precision drilling.

The built-in Diamond Point Dresser, is instantly available to keep the grinding wheel sharp cutting and the Web Thinning Attachment cares for all types of Notched Points.

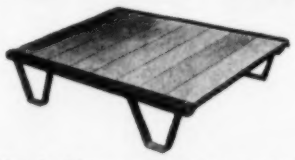
If you use small drills, singly or in gangs, this moderately priced Black Diamond will keep any quantity sharp and ready for use.

BLACK DIAMOND SAW & MACHINE WORKS, INC.
NATICK, MASSACHUSETTS

▲ For more details circle NED-6244 on enclosed inquiry slip ▲

In production or in storage

IRONBOUND EQUIPMENT HANDLES SMALL PARTS MORE EFFICIENTLY



Standard 2-way entry bolted type skid built to handle loads up to 5 tons.

Standard box top welded to standard skid. Available too, with removable boxes. Handles many items in production and storage.

Flexible arrangement of boxes and skids permits tiering and stacking to meet your individual requirements. Provides quick availability, easy handling, or storage for complete units or parts.

Each of the units illustrated has an important use in modern industry. Ironbound skid platforms and box tops are prime sources of increased plant capacity so vitally needed today. Our representative can help you to increase your output and plant space. Catalog GP-7 may help you, too!

IRONBOUND
BOX & LUMBER COMPANY
Materials Handling Division
55 HOFFMAN PLACE • HILLSIDE, N. J.

MANUFACTURERS OF QUALITY BUILT SKIDS, SEMI-LIVE SKIDS, FLOOR TRUCKS, ROLL TRUCKS, DOLLIES AND PRY BARS

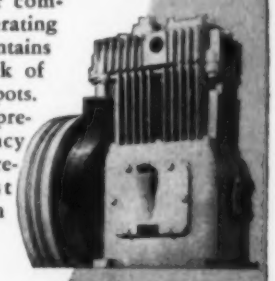
▲ For more details circle NED-6245 on enclosed inquiry slip ▲

▲ For more details circle NED-6249 on enclosed inquiry slip ▲

Keeping Your QUINCY Compressor Running is Our Job

AUTHORIZED Quincy COMPRESSORS SERVICE

That's right! It's our responsibility to see that you get maximum service from your Quincy Compressor. To help keep your air compressor at peak operating efficiency, Quincy maintains a nation wide network of Authorized Service Depots. These depots carry a representative line of Quincy parts. Each depot is prepared to give you fast efficient service. You can depend on it!



Quincy COMPRESSORS

QUINCY COMPRESSOR CO., Dept. NE-19, Quincy, Illinois
Branch Offices: New York • Philadelphia • Chicago • St. Louis • Dallas • San Francisco

▲ For more details circle NED-6250 on enclosed inquiry slip ▲

If Your Paint Spray Booth Is A Space, Installation or Hazard Problem

RP PAINT ARRESTORS CAN SOLVE IT FOR YOU

R-P Paint Arrestors—easily, economically installed under the floor grill, makes this installation possible. Save labor, material, maintenance costs with this flexible, effective system of overspray removal.

WRITE FOR FREE BOOKLET

Helpful, informative suggestions to solve your paint spray booth problems. Write today.

RESEARCH PRODUCTS CORPORATION
MADISON 10 WISCONSIN

RP . . . PRODUCTS OF RESEARCH

▲ For more details circle NED-6251 on enclosed inquiry slip ▲

Your SAWS are no better than your SAW FILING

Inaccurate saw filing can ruin the cutting efficiency of the best saws, perhaps crack or break them. The machine precision of Foley Saw Filing can increase your sawing output 25% to 40%. The Foley *automatically* joints the saw as it is filed, making all teeth uniform in size, height, spacing. Foley-filed saws run cooler, cut fast, do beautiful work—and stay sharp longer.

30-DAY TRIAL of the Foley Saw Filer is offered—to show you what a difference Foley-filed saws can make.

FOLEY *Automatic* SAW FILER

FOLEY MFG. CO, 3323 N. E. 5th St., Minneapolis 18, Minn.
Please send literature on the Foley Automatic Saw Filer and details of your 30-Day Trial.
*Name*_____
*Address*_____

▲ For more details circle NED-6252 on enclosed inquiry slip ▲

Backstand Method Saves Time!

Toledo Steel Tube Co. saves 2 hours per operator per day in finishing department

They point out these advantages of the backstand belt method over the set-up wheel method:

1 Time is not lost in making set-up wheels. Formerly the operators were given 2 hours a day for making their set-up wheels.

2 One backstand belt will outlast 4 to 5 set-up wheels for this application.

3 Belts maintain a flat surface for the grinding and polishing operation, whereas set-up wheels became rounded and needed dressing from time to time.

4 The uniform grit on the belts gives a better finish than did the rolled-on grit of the set-up wheels.

If you are grinding, polishing or finishing flat or contoured surfaces, cast pieces, stamped pieces or forged pieces, write today for our free booklet, "Facts About Backstand Belt Grinding and Polishing."

We recommend buying through your industrial distributor

ARMOUR *Coated Abrasives Division*

SHEETS • ROLLS • BELTS • DISCS

Armour and Company • North Benton Road • Alliance, Ohio

For more details circle **NED-6255** on enclosed inquiry slip

This Simple

AMERICAN MONORAIL SYSTEM

Saves $12,800 Annually in Handling Costs

A saving of 64 man-hours per day (2 shifts) resulted when this unique, simple American MonoRail Overhead Handling System was installed. The entire cost was less than $10,000—so the system paid for itself in less than a year.

You, too, can profit by American MonoRail Overhead Handling. Just drop us a note—we'll be glad to discuss your problem. No obligation, of course.

THE AMERICAN MONORAIL COMPANY

13116 Athens Avenue • Cleveland 7, Ohio

For more details circle **NED-6256** on enclosed inquiry slip

NO { Towels / Mess / Servicing

With the perfected, automatic

NATIONAL HAND DRYER

—dries hands completely dry in 20 seconds!

Eliminates the constantly mounting cost of paper towels or towel service—no storage problem, no filling of cabinets, no removal, cleaning and disposal time or attention. No time when clean, sanitary drying service is not available.

Do you really know how much your wash room service is costing you?

One fast-acting, tamper-proof NATIONAL HAND DRYER serves 1½ to 2 wash basins, pays for its cost from actual cash outlays in 12 to 18 months, gives quick, soothing drying service at the touch of a button, and is rapidly winning preference in hand drying because of its fast pleasing action.

Let us show you an actual example of continuous cost savings with NATIONAL DRYERS over towels. Fill in the coupon and attach to your letterhead for quick response.

National Dryer Sales Corporation
Dept. NE-8, 616 West Adams St., Chicago 6

Without obligation, send complete information on National Hand Dryers and example of cost savings.

( ) Also send information on National Hair Dryers.

Name .....

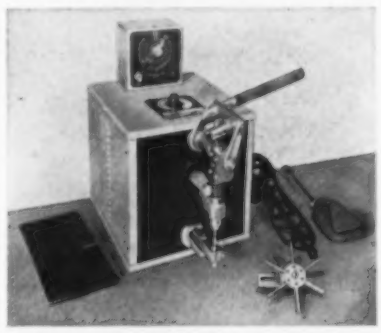
Address .....

City ..... Zone ..... State .....

For more details circle **NED-6257** on enclosed inquiry slip

SPOT WELDING & SOLDERING UNIT

solders or welds various materials in less than one second



Designed for manufacture of instruments and other small products, this resistance spot welding and soldering machine is equipped with automatic cutoff timer which regulates soldering time. It will spot weld steel parts up to 3/32-in. thick, and solder brass up to ⅛-in. thick. Sterling silver and other precious metals can be joined by machine which also silver solders, soft solders and spot welds.

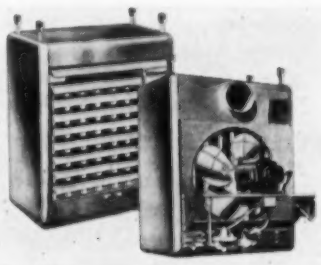
Model 1000 WV is rated 9 amp on 110 v ac, while model 2000 WV is rated at 10 amp on 220 v ac and is equipped with water-cooled electrode holders. Models 1000 WH and 2000 WH are same as above two models, except that horizontal electrodes are standard. All machines measure 10 x 10 x 11 in., plus 4-in. high control box.

Electrodes are designed for each job, their operation being spring controlled so that work is held firmly in position during soldering and cooling when electrode arms are closed. Eleven degrees of heat are provided. When dials are set, uniform soldering time, heat and holding pressure on electrodes are maintained, regardless of how long foot switch is held down. Made by **Joyal Products, Inc.**, 56A Belmont Ave., Newark 3, N. J.

For more details circle **NED-6258** on enclosed inquiry slip

GAS-FIRED UNIT HEATERS

line includes fan, blower and duct models for use on any type of gas



Sheet steel and cast iron heat exchangers are available in line of gas-fired unit heaters which includes fan, blower and duct types for use with natural, manufactured, mixed or propane gas. All heat generated by burning gas is delivered directly to heat exchangers and then to circulating air. Design insures even distribution of heat for long life.

Hammertone baked enamel finished steel cabinets provide for four-point suspension within 6 in. of ceiling. Two-point mounting is accomplished by using adapter kit. Access to internal parts is afforded by hinged lower panel. AGA tested and approved, heaters are equipped with standard safety controls.

Series 23 units with sheet steel heat exchangers are offered in fan type in sizes with capacities from 55,000 to 200,000 Btu per hr and in blower models with adjustable motor pulleys for varying blower speed. Equipped with cast iron heat exchangers, series 20 heaters have capacities of 100,000 and 135,000 Btu per hr and are available in propeller fan, blower and duct types. Made by **United States Air Conditioning Corp.**, 3316 Como Ave. S. E., Minneapolis 14, Minn.

For more details circle **NED-6259** on enclosed inquiry slip

Making a quality product is YOUR business.. Packaging it properly is OUR business!

THAT IS WHY . . .

so many companies with U. S. Government contracts requiring method IA-3, IA-8, IA-9, IIa, IIb or IIc type packaging in flexible barrier material, use AMSCO packaging equipment.

AMSCO equipment is specifically designed to properly fabricate, handle and seal barrier materials. During World War II, AMSCO pioneered in the development of dependable, diversified barrier packaging equipment.

Avoid the danger of improper packaging and great loss of money by rejects. SEND FOR YOUR COPY of AMSCO BOOK "BARRIER TYPE" Packaging for U. S. Government orders. Available at no charge. Write Dept. NED.

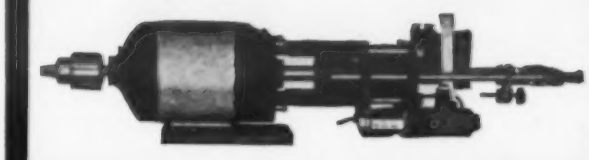
IMPORTANT

Many Government contracts specify packaging in Polyethylene, Cellophant or Pliofilm. AMSCO has equipment for fabricating, handling and sealing these materials.

AMSCO
PACKAGING MACHINERY, INC.
31-31 48th Avenue, Long Island City 1, N. Y.
Specialists in diversified Packaging Equipment

For more details circle **NED-6260** on enclosed inquiry slip

New **BLACK** SELF-CONTAINED DRILLING UNITS



NO SPLINES

NO GEARS

NO CAMS

NO CLUTCHES

NO REVOLVING WEIGHTS

Self-contained units, at low cost, for drilling, tapping, chamfering, reaming and similar operations.

New principle employs traversing motor shaft for work spindle, applies even torque with practically no end play. Drill has air feed for rapid advance to work—hydraulic control to completion of work cycle with uniform feed. Tapping unit controlled so tap follows its own lead without chamfering first thread or stripping threads on return stroke. Easy adjustment—depth accuracy to within .001".

Operate in any position. Wide range of speeds and sizes.

Write for complete information

THE BLACK DRILL COMPANY
1380 EAST 222nd STREET CLEVELAND 17, OHIO

For more details circle **NED-6261** on enclosed inquiry slip

how to trap amperes and save circuits....

Amp-trap*

AMAZING NEW CURRENT LIMITER
100,000 rms AMPERES INTERRUPTING CAPACITY

TWO-WAY PROTECTION
Protects against *both* overloads and shorts on circuits up to 600 Volts AC or DC. Supplied in all standard ratings from 1 to 4,000 amps. Limits short circuit currents on circuits where available short circuit current may be as high as 200,000 amps.

STOPS SHORT CIRCUITS SHORT
Lightning fast Amp-trap is directly responsive to the *rate of short circuit current rise*. It is *as fast as the circuit is fast*. Provides positive overload and short circuit protection for switchgear, buss-ducts, motor starters, circuit breakers, current transformers. With Amp-trap you can now have low-cost protection for every service entrance on a network system.

APPROVALS
Listed by Underwriters Labs. Interrupting tests up to 202,000 amps @ 500V 60 Cycles witnessed and certified by Electrical Testing Laboratories, Inc.

FOR OLD OR NEW SYSTEMS
There is an Amp-trap for every application. They are easily installed and quickly adapted to new or old equipment. Cost is relatively low.

WRITE TODAY. SEND FOR FREE BOOKLET ON AMP-TRAP.

*Trade Mark Registered.

(You can get Amp-trap)

THE CHASE-SHAWMUT CO.
382 MERRIMAC STREET • NEWBURYPORT, MASSACHUSETTS

For more details circle **NED-6262** on enclosed inquiry slip

ONLY ONE

grease to buy and apply!

HOUGHTON'S

COSMOLUBE

multi-purpose grease for all HOT SPOTS COLD SPOTS WET SPOTS!

- Resists high temperatures
- Pumps easily below zero
- Insoluble—water resistant

Adheres to metal, reduces leakage • Won't deteriorate • Eliminates grease selection problems!

WRITE FOR BULLETIN

E F HOUGHTON & CO. PHILADELPHIA 33, PA.

Ready to give you on-the-job service

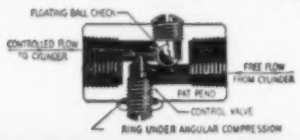
For more details circle **NED-6263** on enclosed inquiry slip

FLOW CONTROL VALVE

for Cylinder Speed Adjustments over a WIDE RANGE IN AIR OR HYDRAULIC USE

The Pneu-Trol Flow Control Valve combines an efficient Stainless Steel FLOATING BALL CHECK which opens and closes at the slightest change in flow direction, with a Vernier Type VARIABLE NEEDLE ORIFICE adjustment in a compact control which has widened air and hydraulic cylinder application by providing precise control of cylinder action. Modifications of the Pneu-Trol Valve are available as Plain Check, check with Fixed Orifice (orifice drilled by customer in the Standard Check Valve), Needle Valve and Velocity Limiting Check, as illustrated at left. All Pneu-Trol Valves are made from bar stock in brass (up to 1000 psi) or steel (5000 psi) or other body metals to your specifications. All internal parts are Stainless. All valves available in 5 sizes—⅛", ¼", ⅜", ½", and ¾".

Attractive prices — immediate delivery. Write for illustrated circular and price list.



WRITE

Pneu-Trol Devices, Inc.
1432 N. Keating Ave., Chicago, Ill.

▲ For more details circle **NED-6264** on enclosed inquiry slip ▲

COMPACT, EFFICIENT, LONG LIFE ELECTRIC HEATING UNITS

CURVED, FLAT and CYLINDRICAL SHAPES

Available in standard and special shapes in diameters, widths and capacities to fit many types of heated production devices. Accurately formed for precise fit to assure maximum heating efficiency. Cylindrical and band units in separate segments or hinged to fit around specific diameters.

there's a WATLOW HEATING UNIT to fit the job

From 2" diameter circles 1¼" wide on up. 9" diameter bands 12" wide and up. Semi-circles 1½" to 7" wide, 1½" to 12" radii. Up to 7000 W.

Send for the Watlow Electric Heating Units Catalog

SPECIALISTS IN ELECTRIC HEATING UNITS

WATLOW
ELECTRIC MANUFACTURING COMPANY
1314 N. 23d St. St. Louis 6, Mo.

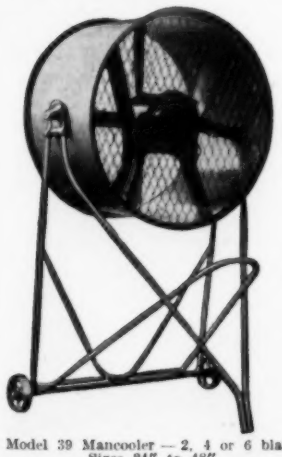
▲ For more details circle **NED-6265** on enclosed inquiry slip ▲

ADD COMFORT . . . SPEED PRODUCTION

with Aerovent FAN

FANS

MAN COOLING



Keep your employees cool for more efficient work. Aerovent "Macheta" airfoil fans are efficient and economical.

Certified Ratings — PFMA

Model 39 Mancooler — 2, 4 or 6 blade Sizes 24" to 48"
Other Models: Direct Connected, Extended Shaft, Duct Type, Belt Driven, Pulley Drive. Sizes 12" to 144".

WRITE TODAY FOR ENGINEERING BULLETIN

AEROVENT FAN CO., Inc.
Ash & Brown Streets, Piqua, Ohio
Competent Sales Engineers in Principal Cities

▲ For more details circle **NED-6266** on enclosed inquiry slip ▲

SNOW BLOWER ATTACHMENT for tractor cleans to 25-in. widths

Small enough for use on sidewalks, 5-hp Gravely tractor equipped with Snow Blower attachment is extremely maneuverable and can be used close to poles, stacks of materials and parked vehicles. It has cleaning width of 25 in. Snow can be thrown wherever desired, an adjustable spout scattering it over wide area or over top of previous banks. Runners on blade allows skimming snow from gravel, macadam or concrete. Drive from tractor to blower is through steel cut, hardened bevel gears with splined steel shafting. Fan housing is of electrically welded 12-gage steel, reinforced with angle iron. Fan blades are 3/16-in. die cut steel and reel blades are ¼ x 2-in die cut steel. Adding to industrial utility of tractor are blade type snow plow, power brush type sweeper, mowers, rotary saw, industrial cart and roller attachments. Made by **Gravely Motor Plow & Cultivator Co.**, Dunbar, W. Va.

▲ For more details circle **NED-6267** on enclosed inquiry slip ▲

SELF-DUMPING TRAILER moved by hand or fork lift truck

Of 1 cu yd capacity, this Phil-Dump self-dumping trailer is equipped with rubber tired and castered rear wheels, permitting one man to haul and unload scrap, castings, wire, cuttings, sand or other bulk materials. Model SRF-1 unit can be pushed by hand or handled by fork lift truck. Safety lock with catch prevents accidental dumping. Balance is such that when lock is released, hopper dumps its load, then returns to loading position where lock automatically engages. Built of heavy gage steel, it has rolled edges to prevent injury to load or personnel. Made by **Phillips Mine & Mill Supply Co.**, 2303 Jane St., Pittsburgh 3, Pa.

▲ For more details circle **NED-6268** on enclosed inquiry slip ▲

DO YOU KNOW? Solutions to low power factor problems are obtained readily with slide-rule type "Power Factor Visualizer" chart. It also explains what low power factor is, what it means to power user and supplier, and what benefits can be obtained through improvement of power factor in industrial distribution systems by installing capacitors. Offered free by Westinghouse Electric Corp., P.O. Box 2099, Pittsburgh 30, Pa.

▲ For more details circle **NED-6269** on enclosed inquiry slip ▲

here's your ANSWER to the

colored wire shortage!

E-Z CODE WIRE MARKERS simplify the assembly of wiring circuits by number or standard NEMA color code—answer problems created by a colored wire shortage. They maintain accuracy...minimize rejections...simplify inspection...and get the most from new, inexperienced employees, even when assigned to the most complicated wiring projects. E-Z Codes, with the exclusive Speed-Tab, are faster to remove from carrying card, quicker to apply *(without moistening)* and adhere permanently to wire and cable, even when pulled through conduit. They are unaffected by heat and humidity. E-Z Codes are the efficient, low-cost answer to your colored wire shortage problem.

WRITE FOR SAMPLES TODAY!

Western Lithograph Co.
600 East Second Street
Los Angeles 54, Calif., Dept. NED-8
Box 3804
St. Louis 22, Mo.

▲ For more details circle **NED-6270** on enclosed inquiry slip ▲

Globe Production Lifts

Speed machine-feeding jobs; reduce waste-motion, lessen fatigue

There is a Globe Production Lift for almost any job from raising paper stock to a cutter to feeding sheet steel into a brake or shears... from feeding tumbling barrels to positioning men and equipment for welding operations.

Globe Production Lifts save time, waste-motion, and strain—the OiLIFT powered platform "inches" upward so that material is always on the right level for easiest and fastest handling. This all adds up to substantial savings in production costs.

Got a Lifting Problem?

GLOBE

has the answer

Muscle is the world's most wasteful lifting power. A Globe OiLIFT will do it cheaper and better.

For helpful information on Self-Leveling Ramps, Machine Loading Lifts, Industrial Truck Service Lifts, Production Lifts, etc., write for bulletin NE-314.

GLOBE HOIST COMPANY • 1000 E. Mermaid Lane, Philadelphia 18, Pa.
(Factories at Des Moines, Iowa & Philadelphia, Pa.)

▲ For more details circle **NED-6271** on enclosed inquiry slip ▲

Costly shop errors are prevented HERE!

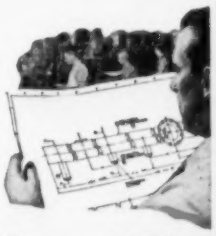
Cooper-Bessemer Corp., Mt. Vernon, Ohio, must send intermediates of required home office drawings to its branch factory in Grove City, Pa.

But they realize that poor intermediates—like poor original drawings—often produce illegible blueprints. And these can lead to costly errors in the shop.

Therefore, they don't take chances. They reproduce their drawings on Kodagraph Autopositive Paper . . . get positive photographic intermediates *directly*—as follows: (1) Exposure in a standard print-making machine; (2) development in standard photographic solutions. A *much* faster operation than is possible with any other type of photographic intermediate material.

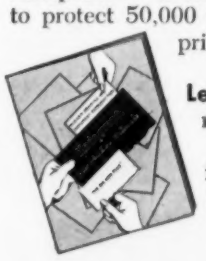
LOW-COST INSURANCE AGAINST COSTLY SHOP ERRORS

The Grove City plant receives sparkling intermediates—every detail sharp and clear . . . with dense photographic black lines on a clean, white, evenly translucent base. Using these Autopositives as print-making masters, highly legible shop prints are produced . . . *at uniform, practical machine speeds.*



Other advantages which Cooper-Bessemer appreciates: Autopositives are photo-lasting . . . hold their detail through hundreds of printings. And they will not fade, become brittle, or otherwise deteriorate in the files.

Small wonder, then, that Cooper-Bessemer is sold on Autopositive—is extending its use at the home plant to protect 50,000 valuable original tracings against print-making wear and tear.



Learn all the ways this revolutionary new paper can help you.

Write for a free copy of the new illustrated booklet, "Modern Drawing and Document Reproduction."

Eastman Kodak Company
Industrial Photographic Division
Rochester 4, N. Y.

Kodak TRADE-MARK

▲ For more details circle **NED-6272** on enclosed inquiry slip ▲

Better Heat Distribution WITH McCORD Unit Heaters

HORIZONTAL TYPE HEATER

More Heat . . . Better Distribution

More heat, better distribution is the answer to any heating problem. McCord, because there is a model and type to meet each particular condition, will do a better heating job. Every improvement that engineers and the experience of many users could suggest is incorporated in the improved models of McCord Unit Heaters. Due to the design and careful attention to balance a new degree of quietness has been attained. The scientifically designed spiral fin tube heating surface provides maximum heat transfer capacity.

VERTICAL TYPE HEATER

McCORD CORPORATION
2580 E. Grand Blvd.
Detroit, Mich.

Specify McCORD ON YOUR NEXT JOB

▲ For more details circle NED-6273 on enclosed inquiry slip ▲

SAFER LOAD BREAKING

New Switch Withstands Heavy Short Circuits Without Damage

For the first time in a safety switch, magnetic repulsion is used to break loads quickly, safely.

The unique "arc-quenching" action of Trumbull's HCI (High Capacity Interrupter) Type A switch provides extra safety and lengthens contact life by preventing pitting.

Other safety features: no exposed live parts when switch is OFF and door is open . . . no faulty indication—switch is either fully ON or fully OFF. Underwriters' Laboratory Approved.

Write for Bulletin TEC-10.

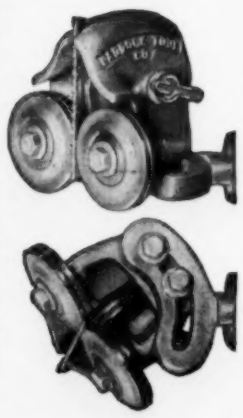
TRUMBULL ELECTRIC
Department of General Electric Company
PLAINVILLE, CONNECTICUT

▲ For more details circle NED-6274 on enclosed inquiry slip ▲

MORE SPEED MORE SUPPORT

ANNOUNCING NEW "PADDOCK GUIDES" FOR BAND-SAWS

Notice carefully details of PADDOCK'S new Ball-Bearing Band-Saw Guides. With this new MODEL 20, blade can be held at an angle—permitting a 36 inch machine to cut material 22 inches thick at an angle up to 45° to any length. The guides are easily adjusted to width, thickness, and blade angle—the ball-bearing wheels reduce blade breakage and hold the working portion of the blade so that more and better work can be turned out. Write for price and details on this NEW GUIDE today.

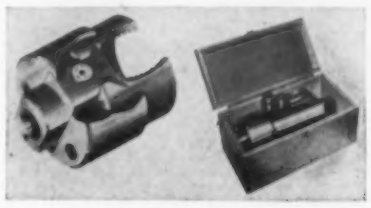


PADDOCK TOOL COMPANY
1418 Walnut St., Kansas City 6, Mo.
Guide Makers Since 1920

Paddock BALL-BEARING BAND SAW GUIDES

▲ For more details circle NED-6275 on enclosed inquiry slip ▲

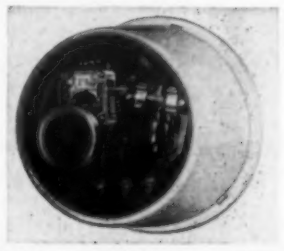
OFFSET BORING CHUCK offers fast setup features



When installed in milling or boring machine, Samson offset boring chuck provides holding device for cutting tool or setup bar as accurate and rigid as machine spindle itself. Chuck can be obtained with either threaded body or integral taper shank. Tool hole in block can be obtained in from ½ to 1¼-in. standard sizes, and two set screws provided hold tool rigidly. Features include block that operates in dovetail ways, fast and accurate setting of tool hole at dead center and micrometer offset screw permitting adjustment to 0.001-in. Made by **Last Word Sales Co.**, 18502 Mt. Elliott, Detroit 34, Mich.

▲ For more details circle NED-6276 on enclosed inquiry slip ▲

ILLUMINATION CONTROL is automatic plug-in type



Completely automatic 'on-off' control of artificial lighting at predetermined light levels can be achieved with this model No. 1089 weatherproof illumination control. Unit is mounted in standard watt-hour meter glass case and consists of stable dry-disk type photocell, sensitive relay, clock motor, mercury switch and limit switch. Installation requires only plugging it into standard watt-hour meter receptacle where it will function at temperatures as high as 140° F down to −30° F. Made by **Weston Electrical Instrument Corp.**, 641 Frelinghuysen Ave., Newark 5, N. J.

▲ For more details circle NED-6277 on enclosed inquiry slip ▲

IMMERSION PYROMETER takes temperature of molten steel

Consisting of platinum-platinum 10 per cent rhodium immersion couple and Speedomax pyrometer with signalling features, this immersion thermocouple pyrometer aids measuring molten steel bath temperatures in open hearths or electric furnaces. Thermocouple is mounted in refractory-protected tube supplied in lengths of from 5 to 12 ft, and reserve supply of platinum wires in tube allows operator to replace element if necessary. Recorder operates set of three signal lights located near furnace to show when thermocouple circuit is closed, when recorder pen moves upscale and when couple registers actual bath temperature. Made by **Leeds & Northrup Co.**, 4934 Stenton Ave., Philadelphia 44, Pa.

▲ For more details circle NED-6278 on enclosed inquiry slip ▲

WHITNEY ROLLER CHAIN *Flexible Couplings*

FOR YOUR DIRECT POWER DRIVE APPLICATIONS

Whitney Roller Chain Flexible Couplings offer the equipment manufacturer and machine user a practical and efficient unit for connecting power equipment to direct drives. All steel construction . . . precision roller chain and hardened cut tooth sprockets provide positive operation . . . assure long life.

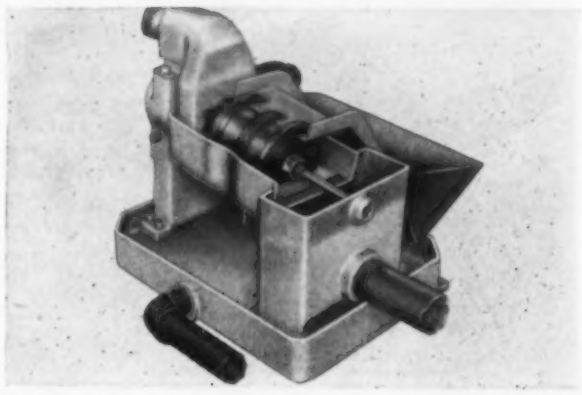
Check these Whitney Flexible Coupling features, easily installed, allows for motor end float, disconnects without removing shafts or bearings, allows for slight shaft misalignment.

You can use Whitney Flexible Couplings wherever a positive yet flexible direct drive is required. Write for information.

WHITNEY CHAIN COMPANY
203 Hamilton Street Hartford 2, Conn.

▲ For more details circle NED-6279 on enclosed inquiry slip ▲

MAGNETIC FILTER FOR METAL WORKING small, compact unit removes over 98%

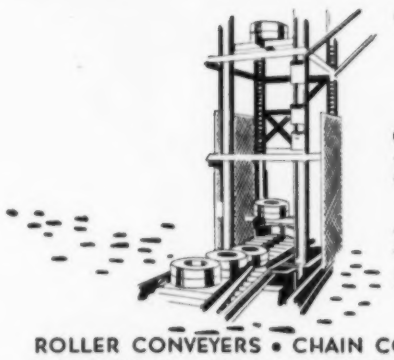


Designed for individual application on machine tools, such as wet surface grinders, thread grinders, milling machines, gear shapers, etc., new Houdaille Magnetic Filter represents the most compact, effective coolant filter on the market. Removes over 98% of contamination from liquid coolants (mineral oils and soluble oil solutions used for grinding and cutting operations)—provides continuous delivery of clean coolant to machine sump for re-use.

Removal of metallic and abrasive particles is accomplished by use of permanent ring magnets completely enclosed in revolving non-magnetic cylinder. Circular steel discs, end pieces of the cylinder acting as magnetic poles, seal off the magnet cores to prevent fluid from coming in contact with magnets. This design provides 360° of constant magnetic attraction.

▲ For more details circle NED-6280 on enclosed inquiry slip ▲

Mathews Elevating



"ENGINEERED TO

● One of the many of conveying equipment by Mathews Conveyer. The complete line Mathews but Co following:

ROLLER CONVEYERS • CHAIN CONVEYERS • LIVE ROLLER CONVEYERS • TROLLEY CONVEYERS • ROLLER SPIRAL SPECIAL CONVEYORS MACHINES

MATHEWS CONVEYER COMPANY
MATHEWS CONVEYER COMPANY, PACIFIC COAST
MATHEWS CONVEYER COMPANY, LTD., CANADIAN

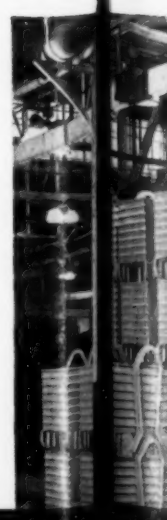
Engineering Offices or Sales Agencies in Principal

▲ For more details circle NED-6281 on enclosed inquiry slip ▲

Hairpins that trim MATERIALS

NOTE the "hairpin" feature of these Union Metal Stacking Skid-Boxes. It's one of the neatest ideas to come along for simplifying and saving on materials handling. It speeds up tiering operations. And when boxes are tiered, it locks them securely in uniform position. Handling or stacking goes more easily and quickly.

Extra advantages: The hairpin angle is riveted and welded to both skid legs and box sides, strengthening the whole unit against hard, steady use. For information, for descriptive Catalog No. 77 describing this and the many other Union Metal box-skid-pallet combinations, write The Union Metal Manufacturing Co., Canton 5, O.



UNION METAL
Materials Handling Equipment

▲ For more details circle NED-6282 on enclosed inquiry slip ▲

ILS AND COOLANTS
98% of all contamination

Turbulent flow of coolant beneath cylinder keeps metallic articles in suspension until they are attracted to metallic poles. Abrasive non-magnetic particles entrained with magnetized contaminants are collected by non-magnetic, frictionless wiper trough, fitted to the magnetic cylinder. No wear occurs on either surface as trough does not rub on cylinder — using instead the accumulation of magnetized articles to wipe mass of contamination as cylinder revolves past trough.

Unit is rated at 20 GPM. Provisions in design prevent spillage when operated above rated capacity.

Contaminated coolant flows by gravity from machine tool into unit for filtering. Clean coolant then drains to machine tool sump where it is returned to the work by coolant pump. If gravity flow is not practical, cycling pump on machine tool or separate pump and motor can be used to provide flow through unit.

Fully automatic, magnetic filter measures 22⅝" long by 16½" high by 22" wide. (Net weight: 145 lbs.) Operates on 1/12 hp. 60 cycle 110 volt single phase motor. Cylinder is driven by fully enclosed worm and worm gear packed in grease. Simplicity of entire mechanism insures freedom from operational trouble.

New unit requires no maintenance—provides longer tool and wheel life, better finishes, fewer rejects and less downtime. Greatly extends life of coolants—eliminates necessity of cleaning sumps periodically. Complete information available in new equipment bulletin. Write **Honan-Crane Corporation**, subsidiary of **Houdaille-Hershey Corp.**, 405 Wabash Avenue, Lebanon, Indiana. Advt.

▲ For more details circle NED-6286 on enclosed inquiry slip ▲

ring Conveyers

EERS TO SERVE PRODUCTION"

e of many widely applied types
ying equipment designed and built
ews Conveyer Company.
omplete line of Mathews designed—
s but Conveyers includes the
:

LIVE ROLLER CONVEYERS • WHEEL CONVEYERS • BELT CONVEYERS • PORTABLE CONVEYERS
ROLLER SPIRAL CONVEYERS • PORTABLE CONVEYERS
CONVEYING MACHINERY

W CONVEYERS
GENERAL OFFICES
COMPANY . . . . . ELLWOOD CITY, PENNSYLVANIA
PACIFIC COAST DIVISION
COMPANY WEST COAST . . SAN CARLOS, CALIFORNIA
CANADIAN DIVISION
COMPANY LTD. . . . . PORT HOPE, ONTARIO
es in Principal American and Canadian Cities

▲ For more details circle NED-6287 on enclosed inquiry slip ▲

GENERAL PURPOSE COUNTER
counts 10,000 units per second

High speed counting in excess of 10,000 units per second by Post Promatic electronic counters is obtained through use of photocell and electronic circuits. Miniature and large bulky parts are accurately counted. Operation of counter can be either accumulative or predetermined. It automatically energizes an external circuit for purpose of segregating batches at end of predetermined count. Visual six-digit totalizer indicates exact count, while rate meter shows rate of count per hour at all times. Counter can be located as far as 75 ft from photocell head. Operation is on 115 v, 60 cycles. Developed by Post Machinery Co. Sold by **General Control Co.**, 1211 Soldiers Field Rd., Boston 34, Mass.

▲ For more details circle NED-6283 on enclosed inquiry slip ▲

WEIGHT CALCULATOR
for sheet metal industry

This simple circular calculator quickly determines weight of steel, aluminum, iron, copper, bronze and lead sheets. Weight is obtained by setting thickness opposite width, then reading the number opposite length. Other material weights can be calculated by using factors given on device. Made of celluloid, this calculator is pocket size. Available free from **Dayton Rogers Mfg. Co.**, 2822 Thirteenth Ave. S., Minneapolis 7, Minn.

▲ For more details circle NED-6284 on enclosed inquiry slip ▲

SMALL MILLING MACHINE
maintains accuracy under hard use

Designed to handle small and medium milling of all kinds at high speeds and heavy feeds, Supermill low-cost production milling machine can be powered by up to 2-hp motors. Spindle accommodates No. 40 American Standard arbors, hand lever feed is standard, and screw and automatic feeds can be obtained. Machine has 12-in. lengthwise, 2-in. cross and 5-in. vertical travel; and distance from overarm to center of arbor is 3½ in. Table has 20 x 6-in. working surface and ½-in. tee slot. Standard equipment includes hinged motor mount installed in base of machine and one set of standard 'B' section V-belt sheaves. Made by **Nolan Corp.**, 1341 E. Dominick St., Rome, N. Y.

▲ For more details circle NED-6285 on enclosed inquiry slip ▲

new, removable Kum-Kleen inspection stickers

Hundreds of industrial plants have found these Kum-Kleen *Removable* Inspection Stickers are far faster, safer and more efficient than string tags, chalk marks, grease pencil, or gummed labels. These pressure-sensitive Kum-Kleen stickers are quickly applied *without moistening*, and they stick-and-stay-stuck to all clean, smooth surfaces, never curl or pop off, yet easily peel off when their job is done. In stock for immediate delivery or available printed to your specifications.

Write for samples ADDRESS DEPT. NED8

AVERY ADHESIVE LABEL CORPORATION Kum-Kleen

NEW YORK CITY: 41 Park Row
DETROIT: 3049 East Grand Boulevard
CLEVELAND: 2123 East 9th Street
PHILADELPHIA: Commercial Trust Building
CHICAGO: 608 South Dearborn Street
CINCINNATI: 626 Broadway Street
MONROVIA, California
Representatives In All Principal Cities

▲ For more details circle NED-6287 on enclosed inquiry slip ▲

Faster, Better, More Accurate...

The Ozalid STREAMLINER duplicates anything drawn, typed or written—in seconds!* Gives you permanent, accurate copies in any size — several colors—on a variety of papers, cloths and films. Printing speed: up to 10 ft. per minute. Changes quickly, easily made with Ozalid *intermediate!*

FREE: For complete information, write for booklet. OZALID, Dept. S-4, Johnson City, N.Y. Or call your local distributor.

**If light won't shine through your original, an inexpensive intermediary step is taken.*

Cut Copying Costs ... Use **OZALID**

Johnson City, New York. Ozalid in Canada—Hughes Owens Co., Ltd., Montreal

A Division of General Aniline & Film Corporation. *"From Research to Reality."*

▲ For more details circle NED-6288 on enclosed inquiry slip ▲

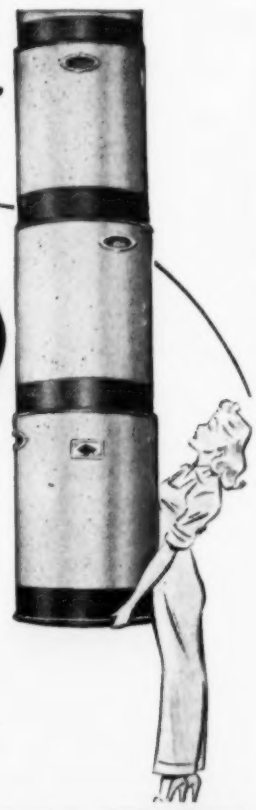
ATERIALS HANDLING COSTS!

Union Metal J102-Y48 Stacking Skid-Boxes

▲ For more details circle NED-6286 on enclosed inquiry slip ▲

Suzy the stock girl says...

"I'm 'toting' more goods faster with these containers!"



It's a fact. Workers in plants like yours are handling more materials, faster, and at less cost with Diamond Vulcanized Fibre Receptacles. Made from a tough, durable plastic, they stay on the job longer—will not crack, splinter or peel. Available in a complete range of types: boxes, barrels, trucks, cans, etc. Put a few in your plant now, on a "trial basis". You'll be surprised at their light weight, long life—and the way workers like to use them. Send for descriptive catalog.

C-D DIAMOND FIBRE RECEPTACLES
CONTINENTAL-DIAMOND FIBRE CO., NEWARK 30, DEL.

▲ For more details circle NED-6289 on enclosed inquiry slip ▲

85,000 R.P.M.!

ARO GRINDERS for Modern Metal Alloys!

HIGH SPEED...with SAFETY!

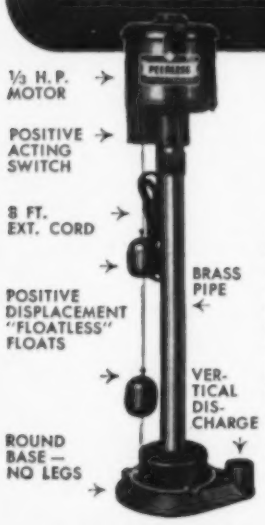
ARO AIR TOOLS

Also . . . LUBRICATING EQUIPMENT . . . HYDRAULIC EQUIPMENT . . . AIRCRAFT PRODUCTS . . . GREASE FITTINGS

ARO's famous Turbine Grinder Model 7335 with Erickson precision collets . . . greater gripping power for *greater safety* at high grinding speeds. 1/64" to 1/4" sizes. Excellent for carbide burr work and small mounted points. Write for catalog.

The Aro Equipment Corporation, Bryan, Ohio
Aro Equipment of Canada, Ltd., Toronto

PEERLESS
AUTOMATIC SUMP PUMP
UNIQUE FLOATLESS SWITCH ASSURES DEPENDABLE OPERATION WITHOUT WATERLOGGING OR FLOAT RODS



PEERLESS PUMPS

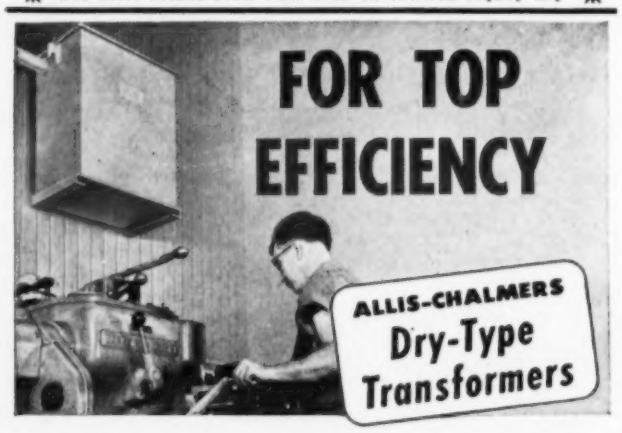
FOR SUMPS UP TO 24", MOTOR 1/3 H.P.
CAPACITIES UP TO 2600 GALS. PER HR.

Pump base, screen, volute and impeller are all bronze. Impeller is non-clog open type. "Floatless" float switch action assures automatic operation. Discharge outlet is vertical requiring no extra fittings to connect discharge pipe. Top suction assures clean shaft bearing. Rotating shaft is stainless steel. Easily adjustable to varied limits of sump liquid level.

WRITE FOR BULLETIN B-2520.

PEERLESS PUMP DIVISION
FOOD MACHINERY AND CHEMICAL CORPORATION
Factories: Los Angeles, California, and Indianapolis, Indiana.
Offices: New York, Atlanta, Fresno, Los Angeles, Chicago, St. Louis, Phoenix; Dallas, Plainview and Lubbock, Texas; Albuquerque, New Mexico.

▲ For more details circle NED-6290 on enclosed inquiry slip ▲



MOTORS, LIGHTS, AND THERMAL EQUIPMENT operate most efficiently at rated voltage. And Allis-Chalmers dry-type transformers provide a quick and easy means of bringing power at the proper voltage right to the load.

These transformers are lightweight and easy to install. They provide flexibility in matching changing loads. The dry-type transformer meets safety requirements for indoor application . . . requires no costly fire-proof vaults. Units are rated up to 300 kva, 600 volts and below.

For more information about Allis-Chalmers dry-type transformers call your nearby Allis-Chalmers district office. Ask for bulletin 61B6382. Allis-Chalmers, Milwaukee 1, Wis.

A-3388

ALLIS-CHALMERS

▲ For more details circle NED-6291 on enclosed inquiry slip ▲

UNIVERSAL
INDUSTRIAL CONVEYOR
Low First Cost . . . .
Low Maintenance

- Removable sides to permit handling large cartons or parts.
- Motor totally enclosed inside conveyor body easily accessible through removable ventilating panel.
- Elevates to desired height with simple hoisting mechanism.
- Driven by means of roller chain to roller bearing equipped gear box.
- Main drive shaft and idler pulley operate on double-sealed ball bearing.
- Standard belt width, 12 inches. Other widths can be furnished to meet your requirements.
- Belt speed, 74 F.P.M.—adjustable if desired.

INDUSTRIAL ENGINEERING & MFG. CO., INC.
BRIMFIELD, INDIANA, U.S.A.

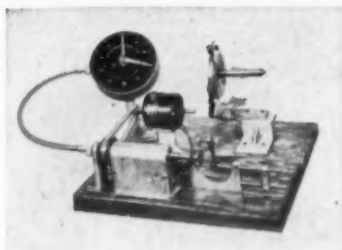
▲ For more details circle NED-6292 on enclosed inquiry slip ▲

AUTOMATIC LIQUID BLENDER
proportions number of ingredients

Two or more of wide variety of liquids can be blended with this automatic liquid blender which is equipped with controls on each meter to permit instantaneous setting of ingredient proportions. Total output is recorded on master counter and each ingredient is recorded separately on its own meter. Master counter can be obtained with predetermining device and/or ticket printer, and meter for each ingredient is available with standard counter or ticket-printing unit. All measurement is by positive volumetric displacement, and failure of any supply automatically shuts off entire system. If supply to any meter slows down for any reason, all meters synchronize automatically to same rate of delivery. Made by **Bowser, Inc.,** 1391 E. Creighton Ave., Ft. Wayne 2, Ind.

▲ For more details circle NED-6293 on enclosed inquiry slip ▲

MINIATURE COIL WINDER
for 3/4-in. width, 1 1/2-in. diameters



Transmission of motor vibration to winding head is reduced to a minimum by a flat fabric belt on this model 39 miniature winder for fine wire random wound bobbin coils up to 3/4-in. wide and up to 1 1/2-in. diameter. Mounting on steel plate assures permanent alignment. For wire gages from 20 to 42 and spools up to 4 1/2 in. diameter, model T-2 tension is furnished. Model T-6 tension accommodates gages from 42 to 46. Winding speeds up to 5000 rpm are achieved by 1/25-hp variable speed series wound universal motor and foot-operated speed control. Cams range from 1/64 to 3/4-in. in steps of 1/64-in. and gears from 20 to 100 teeth. Compound idlers are offered for additional gear ratios. Six-inch dial counter shows number of turns wound. Made by **Geo. Stevens Mfg. Co.,** 6024 N. Rogers Ave., Chicago 30, Ill.

▲ For more details circle NED-6294 on enclosed inquiry slip ▲

DO YOU KNOW? Radioactive particles can be kept out of atmosphere by new absolute filter which will be built with capacities up to 1000 cu ft per minute for central station air conditioners. Filter will be particularly useful where air must be completely dust free or sterile. Air containing as much as 20,000 particles per cu in. is reduced to 1000 to 3000 particles with conventional air cleaning devices. Absolute filter is reported to have passed an average of a single particle per cu in. of air. Filter will be made by **Cambridge Corp.,** 350-b S. Geddes St., Syracuse, N. Y.

▲ For more details circle NED-6295 on enclosed inquiry slip ▲

NEW JACK LOCATES ON ANCHOR BOLT

Empco JACK STYLE JS

- SELF-ALIGNS TO UNEVEN FLOOR
- EASILY LIFTS 8,000 LBS.
- SIMPLY TURN ADJUSTING NUT TO RAISE OR LOWER MACHINE
- VI-SORB MOUNTING PADS ABSORB VIBRATION

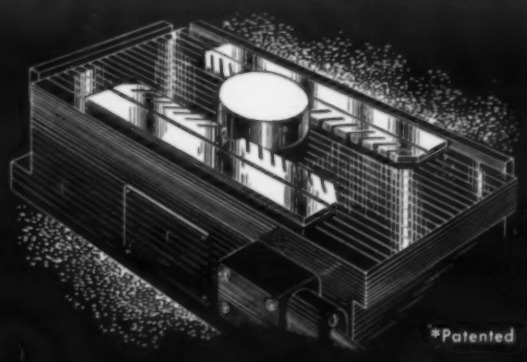
Where anchor bolts are used, this new Empco Jack Style JS will save considerable time in setting and keeping equipment level.
Tested to support 20 tons and lift 8,000 lbs., this Empco Jack is the answer to any machine installations. Anchor bolt hole through the jack assembly allows clearance for 3/4" diameter bolt. This permits the Empco Style JS Jack to be used at the *precise spot* where equipment was designed to be best supported.
Available in three sizes: 1 3/4", 2", and 3" (minimum heights) with VI-SORB mounting pads as optional equipment.
Write for specifications and prices of complete line of Empco Leveling Jacks.

EMPCO PRODUCTS

THE ENTERPRISE MACHINE PARTS CORPORATION
2727 JEROME AVENUE • DETROIT 12, MICHIGAN

▲ For more details circle NED-6296 on enclosed inquiry slip ▲

PLASTIC . . . MAGNESIUM . . . FIBRE
MONEL METAL . . . HARD RUBBER
. . . other rigid non-magnetic materials
CAN BE HELD ON MAGNETIC CHUCKS!



*Patented

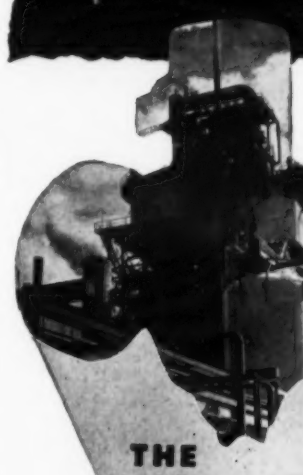
Magna-Vise MAKES IT SIMPLE!

Get full details on this revolutionary shop-proved device . . . write Dept. ND-81.

Hanchett MAGNA-LOCK CORPORATION
Magna-Lock
Magnetic Chucks and Devices
BIG RAPIDS • MICHIGAN, U. S. A.

▲ For more details circle NED-6297 on enclosed inquiry slip ▲

THE VALVE THAT WAS DESIGNED FOR
PETROLEUM CHEMICAL SERVICE

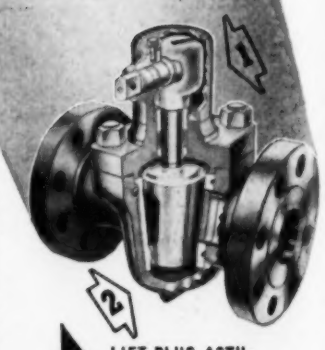


THE *Cameron*
NON-LUBRICATED
LIFT-PLUG VALVE

Originally designed for acid and light hydrocarbon service and first tested and proved in one of the nation's largest wartime alkylation units, the Cameron valve has since distinguished itself in all sorts of difficult petro-chemical services—chlorine, caustic, ammonia, gas distillate, ethylene oxide, butane, propane, molten sodium, oilfield and others.

The Cameron Non-Lubricated Lift Plug Valve combines the best features of gate and plug valves with a number of new mechanical innovations. Test it in your most difficult service. See for yourself how easily it operates and how tightly it seals, yet it requires no lubrication. Consequently the possibility of product contamination and clogging of metering equipment is eliminated. No periodic maintenance. No lubrication expense.

A descriptive booklet will gladly be sent to interested operators on request.



1 LIFT-PLUG ACTUATOR lifts, turns and reseats plug in only three-quarters of a turn of the operating wrench.

2 SEPARATE, RENEWABLE SEAT: Pressure-created body deflections and line strains cannot destroy the geometry of the fit between sealing surfaces because they cannot be transmitted to the separate seat.

Cameron IRON WORKS, INC.
P. O. Box 1212 Houston, Texas
Export: 74 Trinity Place, New York, N. Y.

▲ For more details circle NED-6298 on enclosed inquiry slip ▲

NOW EVEN MORE POWER EVEN LESS COST with REPUBLIC TRANSMISSION BELTING

• Get that added power for increased production with Republic Rubber's flexible, pre-stretched Transmission Belting.

Built with heavy, hard-woven, rubber-impregnated fabrics, with square or sealed edges and non-slip friction surfaces, Republic Belts are adaptable for duty on heavy industrial drives subject to shocks and stresses and on drives operating at high speeds over small pulleys.

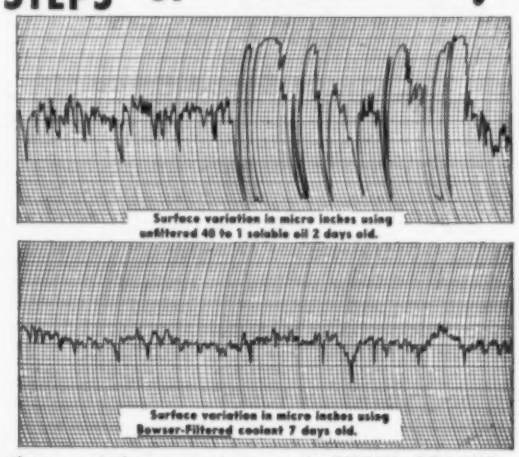
Republic Transmission Belts are free from fastener trouble. They're **pre-tested** under job conditions to assure most efficient power delivery at lowest possible costs.

• Contact your local Republic Distributor or write direct for full facts.

INDUSTRIAL RUBBER PRODUCTS BY
REPUBLIC RUBBER DIVISION
Lee Rubber & Tire Corporation
YOUNGSTOWN, OHIO

▲ For more details circle **NED-6299** on enclosed inquiry slip ▲

HOW FILTERED COOLANT STEPS UP PRODUCTION!



These surface variations are from work FINISH GROUND to .0001 tolerance, to be lapped later to 1/200,000.

Rejections averaged 25% with unfiltered coolant—were reduced to less than ½% when Bowser-filtered.

Our nearest sales engineer will welcome an opportunity to discuss your coolant filtration problems. May we have him call?

BOWSER, INC., 1381 Creighton Ave., Fort Wayne 2, Ind.

BOWSER LIQUID CONTROL SPECIALISTS SINCE 1885

▲ For more details circle **NED-6300** on enclosed inquiry slip ▲

DEALER

Order MOTCH & MERRYWEATHER
SLITTING AND SLOTTING SAWS
SOLID AND SEGMENTAL CUT-OFF BLADES
from your Local Dealer
OR FROM OUR PLANT IN CLEVELAND..

COMPLETE RANGE OF SIZES • PROMPT DELIVERY

THE MOTCH & MERRYWEATHER MACHINERY CO.
PENTON BUILDING • CLEVELAND 13, OHIO

COMMAND OUR UNPARALLELED EXPERIENCE IN CIRCULAR SAWING

▲ For more details circle **NED-6301** on enclosed inquiry slip ▲

UNIT OIL COOLER
for use at pressures up to 150 psi

Oil can be cooled when water is at a premium or waste heat used to warm room interiors with this unit oil cooler. It is available in nine models of non-ferrous tube-and-fin construction and is suitable for use with oil pressures up to 150 psi. Cooling element is supported in casing by spring suspension to eliminate damage from expansion and contraction. Ample heat transfer is assured by design which breaks up flow in such manner that oil is constantly wiping tube surface. Unit has gray metallic finish, and header castings are tapped to receive rods for hanging cooler independent of piping. Made by **Young Radiator Co.**, 729 Marquette St., Racine, Wis.

▲ For more details circle **NED-6302** on enclosed inquiry slip ▲

LAMP ANNUNCIATOR
also incorporates audible signal

Two-inch beehive lenses and engraved lamicoid designation strips are features of type ANN18 heavy duty lamp annunciator. Available for up to 250-v ac or dc and using S6 or T2 bulbs, units have plug-in relays which mount directly to rear of lamp units. Flat lenses also can be employed with markings directly on glass. Automatic service provides audible signal, and cutting off of audible signal for one section does not interfere with normal operation of other sections. Annunciators can be used to supervise anything which can be equipped with electrical contacts such as pressure and temperature, vaults, switches, liquid level and process elements. Made by **H. R. Kirkland Co.**, 8-10 King St., Morristown, N. J.

▲ For more details circle **NED-6303** on enclosed inquiry slip ▲

DO YOU KNOW? Heavy coke-like deposits, tar, paint and carbon varnish are removed quickly from pistons, carburetors, diesel injectors, cylinder heads and pneumatic tools with di-phase solvent which is used as simple cold immersion followed by water or dry cleaning solvent rinse. It is supplied in open-top drum kits. Developed by Curran Corp., S. Canal St., Lawrence, Mass.

▲ For more details circle **NED-6304** on enclosed inquiry slip ▲

the finish that starts a Million Calls...

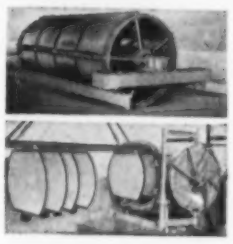
Bench mounted HS4 with felt bob on plastic mold polishing.

Your phone will withstand the roughest use for more than a million calls. That record is due in part to a perfect molded surface free from pits and crevices where failures start. Haskins Flexible Shaft equipment polishes these precision molds to mirror-like perfection . . . assures constant, precise molding. Whatever your requirements for polishing, sanding, filing or grinding, you'll find the right Haskins machine and attachments with a proved record of fast, efficient performance. Your choice of mounting—bench, pedestal or suspended. Write today for full information. R. G. Haskins, 603 S. Washtenaw St., Chicago 12, Ill.

haskins HASKINS
FLEXIBLE SHAFT EQUIPMENT

▲ For more details circle **NED-6305** on enclosed inquiry slip ▲

why look further for special metal assemblies? call Cambridge your approved source for properly designed crates, racks, trays, baskets or fixtures -- expertly fabricated from any metal or alloy...



for processing your products or materials, in bulk, through liquids, heat, gases or corrosive agents.

Submit your own blueprints for quotation, or merely give us the details of the process for which the assembly must be designed. Our trained engineers and metalworkers will do the rest.

Look under "Baskets—Wire" in your Classified Telephone Directory to call your Cambridge Field Engineer, or write direct.

Ask for FREE folder describing Cambridge facilities for special metal fabrications.

The Cambridge Wire Cloth Co.

WIRE CLOTH | METAL CONVEYOR BELTS | SPECIAL METAL FABRICATIONS

Department C
Cambridge 8, Md.

OFFICES IN PRINCIPAL INDUSTRIAL CITIES

▲ For more details circle **NED-6306** on enclosed inquiry slip ▲

Solve YOUR LAMINATED PLASTICS PROBLEMS AS EASY AS... 1 2 3

It's as easy as that when you rely on Taylor *full-line* Service. Here's why:

1. If your problem demands *vulcanized fibre* that is tough, high in dielectric strength and light in weight, you can solve it with Taylor Vulcanized Fibre in sheets, rods, strips, or coils.

2. If your problem calls for *phenol fibre* or *glass melamine* and *silicone laminates*, to meet specific characteristics, you'll find the material you need in our wide range of grades, available in sheets, tubes, rods and strips.

3. If you are looking for a supply source for parts fabricated to your specifications, Taylor Fabricating Service can turn out precision-parts on time ready for your production line.

Want to read more about the plus-values of Taylor *full-line* Service? Write for catalog ND8.

Taylor
TAYLOR FIBRE CO.
NORRISTOWN, PENNSYLVANIA
West Coast Plant: La Verne, California
Offices in Principal Cities

▲ For more details circle **NED-6307** on enclosed inquiry slip ▲

Another new Hansen Feature

FASTER CLEANING AND SERVICING ON-THE-JOB!

IN LESS THAN A MINUTE —without the aid of tools— you can service a Hansen Tacker on-the-job!

Simply swing-out the Take-up Jaw, insert Channel Cleaner, and swing-in the Take-up Jaw (see pictures at left.) Only sixty seconds to service!

No jobs delayed; no waits for return from factory. Hansen *stays on the job!* Tacks faster! Works easier! Saves man-hours!

REQUEST BOOKLET!

A. L. HANSEN MFG. CO.
5164 Ravenswood Ave.
CHICAGO 40, ILL.

▲ For more details circle **NED-6308** on enclosed inquiry slip ▲

A Journeyman's Tool, built to stand up under constant, on-the-job Contractor or industrial use . . .

Cutting opening in oak flooring in less than 3 minutes—no starting hole needed!

● **NO STARTING HOLE NEEDED** . . . Simply place guide next to material and "rock" tool into an upright position.

● **CUTS RIGHT THRU IMBEDDED NAILS** . . . wood, plaster, iron pipe, sheet metal, "Transite" and most other materials—even in cramped quarters.

● **FITS HEAVY DUTY ¼" or ⅜" DRILL** . . . as easy as changing bits! Overall length only 10¾"; weight only 3 lbs. 6 ozs.

● **BUILT FOR CONSTANT DUTY OPERATION** ..Built-in blower keeps Super-Saw cool even when used continuously and blows sawdust away from cutting line. Replaceable "Oilite", phosphor bronze and high speed ball bearings throughout. Write for Bulletin R8.

Listed on Federal Supply Schedules. Class 40 Material.

R.C.S. TOOL SALES CORPORATION
JOLIET, ILLINOIS, U. S. A.

▲ For more details circle NED-6309 on enclosed inquiry slip ▲

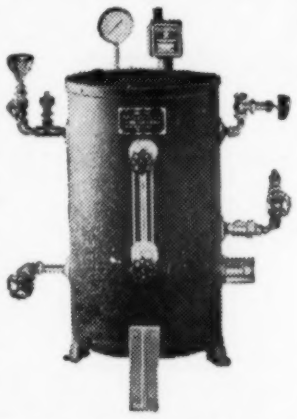
SYNCHRONOUS TIMING MOTOR delivers over 16 oz-in. torque

Capable of delivering over 16 oz-in. starting torque at 1 revolution per minute, this model No. 425 synchronous timing motor has 2-in. diameter and is 1 17/64 in. deep. It can be obtained also with speeds varying from 1 revolution per hour to 1800 rpm, all operating on 60-cycle 110 v ac. Shafts can be supplied with diameters varying from 0.100 to 0.187-in. and lengths from 0.218 to 0.500-in. Made by **Bristol Motor Co.**, 306 Bristol Bldg., Old Saybrook, Conn.

▲ For more details circle NED-6312 on enclosed inquiry slip ▲

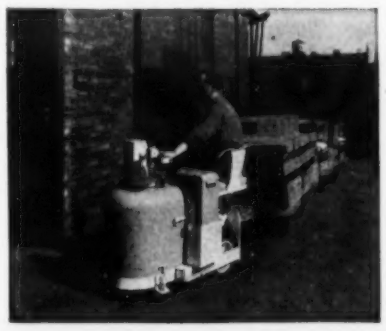
MINIATURE STEAM GENERATORS have 100-psi working pressure

These miniature automatic steam generators are designed to be used with laboratory apparatus. Generators have submerged heating elements and can be obtained in four sizes, smallest of which has 2-gal water capacity, 7½ x 16-in. boiler and weighs 140 lb. Working pressure is 100 psi, and starting with cold boiler, generator is capable of delivering full steam pressure within 20 minutes. Constructed of ASME code welded steel, boiler is Underwriters' Laboratories approved. Made by **Palo Laboratory Supplies, Inc.**, Dept. N, 81-83 Reade St., New York 7, N. Y.



▲ For more details circle NED-6313 on enclosed inquiry slip ▲

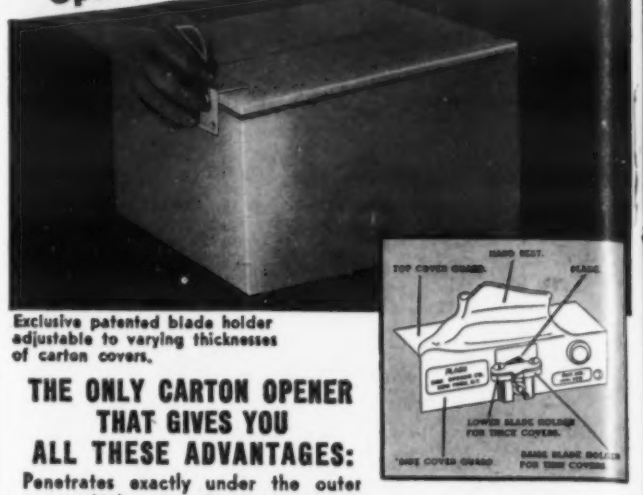
SMALL INDUSTRIAL TRACTOR is driver-ride electric model



Drawbar pull of 700 lb is developed by Tractor Ox rider type electric industrial tractor. Finger tip controls, front wheel drive and compact design contribute to maneuverability of this machine in either towing or pusher applications. Power shuts off automatically when brakes are applied. Made by **Barrett-Cravens Co.**, 4605 S. Western Blvd., Chicago 9, Ill.

▲ For more details circle NED-6314 on enclosed inquiry slip ▲

Amazing
FLASH BOX OPENER
Opens Any Carton Quicker . . . Cleaner



Exclusive patented blade holder adjustable to varying thicknesses of carton covers.

THE ONLY CARTON OPENER THAT GIVES YOU ALL THESE ADVANTAGES:

Penetrates exactly under the outer cover thickness • Protects contents of carton • Cuts clearly to permit re-use • Prevents accidents • Saves time • Eliminates fatigue. *Already accepted by leading industries.*

Retail Price **$1.75**

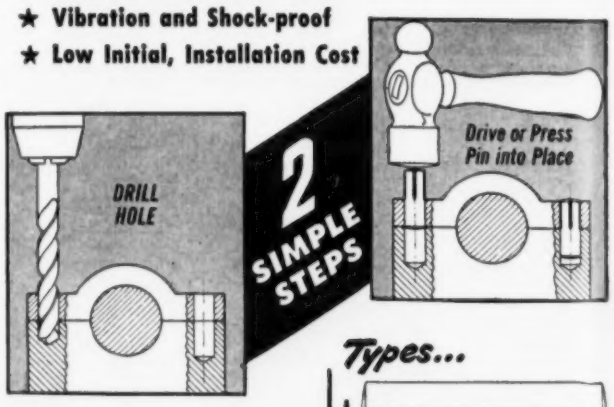
FLASH BOX OPENER CO., Inc.
52 W. Houston St. • New York 12, N. Y.

▲ For more details circle NED-6316 on enclosed inquiry slip ▲

Simple... Dependable...
low-cost fastening with DRIV-LOK PINS

★ Simple Installation
★ Versatile...Types for Most Applications
★ Wide Selection of Materials
★ Vibration and Shock-proof
★ Low Initial, Installation Cost

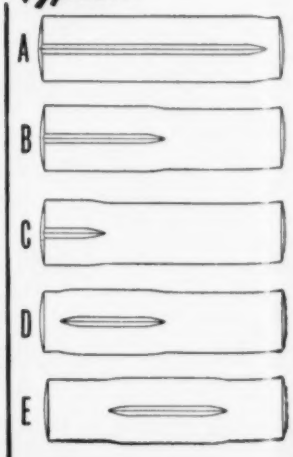
TYPE "C" PIN



DRIV-LOK Pins are widely used as hinge and pivot pins because they permit maximum free rotation of one part, while remaining securely locked in the other. Quick, easy installation of DRIV-LOK Pins cuts assembly costs, waste motion is reduced and product improvement results.

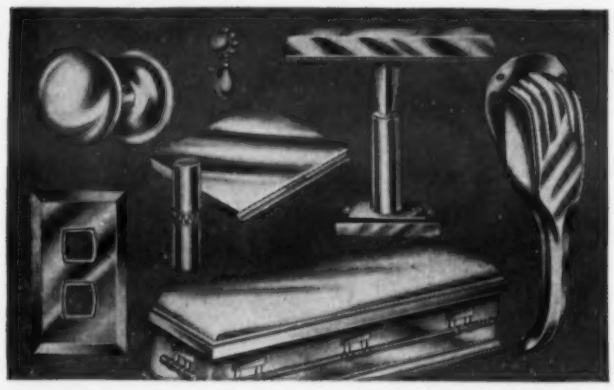
DRIV-LOK Pins are made in many types to handle most applications. Write for catalog and samples, giving nature of your fastening problem.

Types...



DRIV-LOK PIN COMPANY
717 Chauncey St. • Sycamore, Ill.

▲ For more details circle NED-6317 on enclosed inquiry slip ▲



NOW . . . simulate copper, brass, bronze with M&W PLATELUSTRE

Apply a coating of the new PLATELUSTRE finishes to zinc or steel—and you wind up with products closely resembling copper, brass or bronze. Whether you have been using copper and its alloys for *making* products or for *plating* them, these finishes will help solve your problem.

Air-drying and baking types. Ask for free literature—or have an M & W Technical Service Engineer demonstrate PLATELUSTRE right in your own plant.

PIONEERS IN PROTECTION

MAAS & WALDSTEIN CO. 430 RIVERSIDE AVE. NEWARK 4, N. J.
MID-WEST DIV.-1658 CARROLL AVE., CHICAGO 12, ILLINOIS
PACIFIC COAST DIV.-SMITH-DAVIS CO., 10731 VENICE BLVD., LOS ANGELES 34, CAL.
MANUFACTURERS OF INDUSTRIAL FINISHES

▲ For more details circle NED-6310 on enclosed inquiry slip ▲

LONGER WORK WEEK? OVERTIME? MORE WORKERS?

Get MORE PRODUCTION PER HOUR FROM EACH WORKER!

Save Up to 50% In Production Time
Increase Man-Hour Output
Combine Work Operations
BURR • CLEAN • FINISH • POLISH In One Time-Saving Operation

Use nationally known BRIGHTBOY; does many jobs better and faster because of the unique action of the combination rubber and abrasive composition.

HOW BRIGHTBOY SAVES PRODUCTION TIME

1. Bridges the gap between the rough grind and the buff.
2. Works to close tolerances; can be shaped to contour.
3. Produces a wide variety of conventional and special finishes and patterns; frequently the final polish.
4. Requires no before-use preparation or dressing; no skilled labor to handle it.

SOME BRIGHTBOY USES: Removing light digs, tool and heat marks • Cleaning welded and soldered joints • Finishing dies and molds • Burring stampings, castings, machined parts.

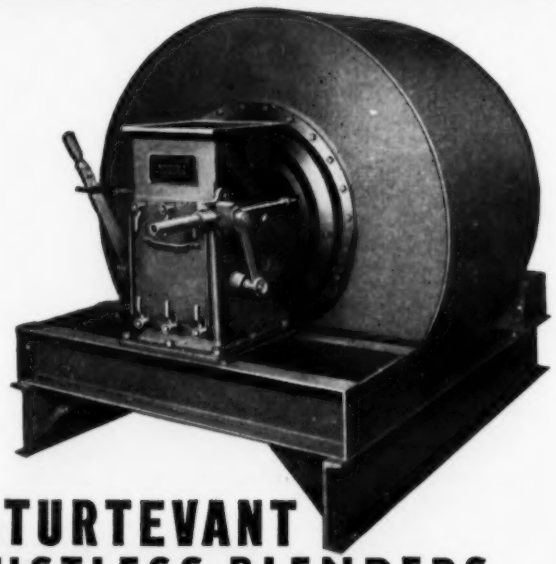
Ask your dealer about Brightboy. Write us for Catalog-Manual, and on any problem where abrasive finishing methods or production are involved.

WELDON ROBERTS **Brightboy**

BRIGHTBOY INDUSTRIAL DIVISION
WELDON ROBERTS RUBBER CO.
NEWARK 7 N. J.

America's Pioneer Manufacturers of Rubber-Bonded Abrasives

▲ For more details circle NED-6311 on enclosed inquiry slip ▲



STURTEVANT DUSTLESS BLENDERS
Thoroughly Blend Substances into an Inseparable Mass

The 4-Way Mixing Action of the Sturtevant Dustless Blenders thoroughly mixes two or more substances into an inseparable whole . . . every part of which is the same analysis. Single receiving and discharging opening insures tight sealing during mixing process. "Open-door" accessibility permits thorough cleaning. The fast, accurate mixing operation increases output . . . cuts mixing costs. Mixing capacities from ¼ ton to 75 tons per hour. Write.

STURTEVANT MILL COMPANY
114-A CLAYTON STREET, BOSTON 22, MASS.

▲ For more details circle NED-6315 on enclosed inquiry slip ▲

"COMMERCIAL"

Specialists in the Manufacture and Design of Pressed

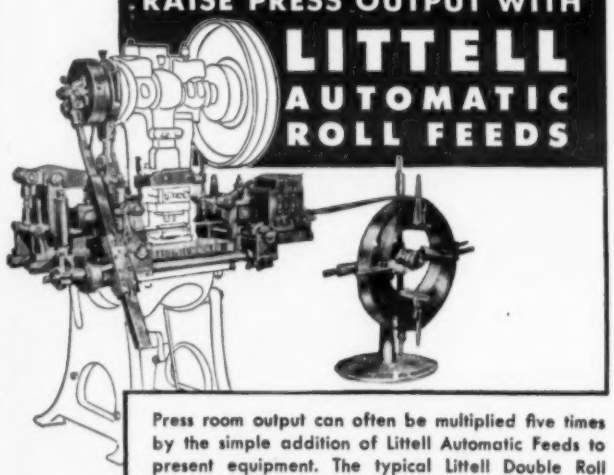
METAL PRODUCTS

TANK HEADS—TANK ACCESSORIES
CIRCULAR STEEL SHAPES
MEDIUM AND HEAVY STAMPINGS
STAMPINGS FOR HEATING AND AIR-CONDITIONING EQUIPMENT
FABRICATED AND WELDED PARTS
STEEL PALLETS FOR THE CONCRETE BLOCK INDUSTRY
STEEL TUNNEL LINING
HYDRAULIC EQUIPMENT PUMPS—VALVES—HOISTS

THE COMMERCIAL SHEARING AND STAMPING COMPANY.
YOUNGSTOWN · 1 · OHIO · U.S.A.

▲ For more details circle NED-6318 on enclosed inquiry slip ▲

RAISE PRESS OUTPUT WITH
LITTELL AUTOMATIC ROLL FEEDS



Press room output can often be multiplied five times by the simple addition of Littell Automatic Feeds to present equipment. The typical Littell Double Roll Feed shown here grips the stock on both sides of the die to assure maximum traction and feeding power. Stock is easier to start and finish in progressive die work. No hand feeding at either end of the stock. Rack and pinion drive provides the smoothness and the gradual acceleration and deceleration of feed rolls for a truly accurate feed. Standard Littell Automatic Feeds serve all types and sizes of presses, handle all standard widths and thicknesses of stock.

Installed on old or new equipment

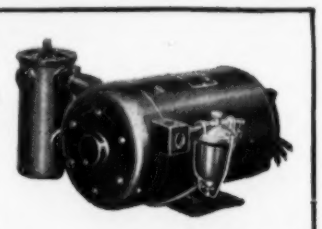
Write for catalog

F. J. LITTELL MACHINE CO.

ROLL FEEDS • DIAL FEEDS • STRAIGHTENING MACHINES • REELS • AIR BLAST VALVES
District Offices: Detroit, Cleveland
4169 N. Ravenswood Ave., Chicago 13, Illinois

WHEN YOU BUY FROM LITTELL...YOU PURCHASE A PACKAGE OF SATISFACTION

▲ For more details circle NED-6319 on enclosed inquiry slip ▲



BUT PLENTY OF VACUUM!

MOTOAIR is the most compact pump you can buy—without sacrificing effective power. Direct rotary drive eliminates extended drives, gears and belts. Whether used independently, or as a machine accessory, it requires little more space than the size of its motor — which is *part* of the pump.

MOTOAIR* PUMP for VACUUM or PRESSURE

LESS PARTS TO WEAR OUT!

No pulsation. Functions perfectly with normal, wall or ceiling mounting. Made in a range of sizes.

Ask for details!

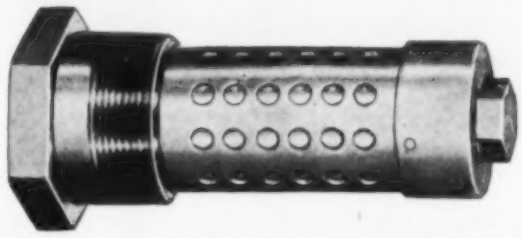
* Reg. U. S. Pat. Off. 815

NEW JERSEY MACHINE CORPORATION
1530 Willow Ave. • Hoboken, N. J.
Factory offices in Chicago, Cincinnati, Los Angeles

▲ For more details circle NED-6320 on enclosed inquiry slip ▲

STEAM-WATER DIFFUSER
efficient for open-tank heating

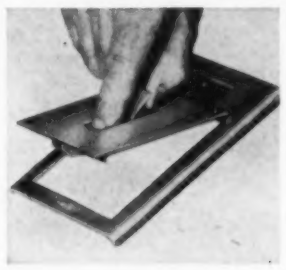
Designed for use in steam-mixer water heater, this all-bronze steam-water diffuser is also efficient for open-tank heating. Staggered holes in inner and outer shells



break steam into small streams and provide quiet diffusion. Cap threaded to inner shell and pinned to both shells secures assembly in place. Diffuser is available in 1 and 1½ in. IPS. Made by **O'Brien Steam Specialty Co.**, 382 Heffernan Bldg., Syracuse 2, N. Y.

▲ For more details circle NED-6321 on enclosed inquiry slip ▲

SELF-CLOSING FLUSH LATCH
does not require manual operation



Door equipped with type H-4000 self-closing flush latch can be closed and latched by pushing it closed without manually actuating latch. It also enables operator to check for bolt engagement as latch handle must return to flush position if bolt has made full engagement. Flush design contributes to reducing hazards often present about machinery where people may catch their clothing on projections. Latch can be obtained in many trigger and bolt offsets for use with access and door panels of almost any thickness, and spring that actuates latch can be varied to provide various torque values. Made by **Hartwell Co.**, 9037 Venice Blvd., Los Angeles 34, Calif.

▲ For more details circle NED-6322 on enclosed inquiry slip ▲

REPAIR & CONVERSION KITS
for pressure regulators, lubricators

Use of repair and conversion kits for Norgren pressure regulators and oil fog lubricators will reduce downtime for repairs, lower repair costs, improve performance of old equipment and facilitates conversion to meet changing production requirements. Fourteen repair kits are offered for type 2A, 2AX, 2E and 2H regulators and lubricators of all types. Six kits are available for converting conventional air pressure regulators to air-relieving types and liquid pressure types. Kits contain from 4 to 11 new parts and include repair or conversion instructions with cross-section drawings. Made by **C. A. Norgren Co.**, 226 Santa Fe Dr., Denver 9, Colo.

▲ For more details circle NED-6323 on enclosed inquiry slip ▲

This HOMESTEAD VALVE Opens or Closes Instantly

It's **STICK-PROOF** because it's **LEVER-SEALD**

HOMESTEAD LEVER-SEALD QUARTER-TURN VALVES are first choice where extremes of temperature, pressure, or corrosive fluids, cause ordinary valves to "stick" or "seize."

They are "stick-proof" because built into each valve is a lever-and-screw device that prevents sticking and assures positive action under all conditions.

They operate 16 to 28 times faster than screw-stem type valves. They are ideal for installation in restricted areas, where other types of valves could not be used. Next time specify Homestead LEVER-SEALD Quarter-Turn Valves. You'll never be satisfied with ordinary valves again.

Send for "Valve Reference Book No. 39-3."

Homestead Lever-Seald Quarter-Turn Valves are available in metals and alloys to suit your needs in sizes from 1½" to 10" for pressures from vacuum to 1500 lbs.

HOMESTEAD VALVE MANUFACTURING CO.
"Serving Since 1892"
P. O. Box 84 Coraopolis, Pa.

▲ For more details circle NED-6324 on enclosed inquiry slip ▲

MICO ENGRAVERS
For Metal, Plastic, Glass or Wood

Cat. No. 252

For engraving nameplates, panels; machined parts or 3-dimensional reproduction of dies and molds.

Cat. No. 253

For engraving large panels and instruments. Will take work up to 19" wide by 19" high and any length. Larger areas can be accommodated by placing pantograph and yoke directly on work.

4 Reduction Ratios, 1.5:1 to 4:1
Ball-bearing Spindle with Micrometer Adjustment

Send for Illustrated Catalogue

MICO INSTRUMENT COMPANY
80D Trowbridge Street
Cambridge 38, Mass.

▲ For more details circle NED-6325 on enclosed inquiry slip ▲

Pick **PIC** *Steel Unions*

for your original equipment!

Unusually Attractive! STRONGER! 100% Zinc Plated

Here's a steel union for 150# service with *exactly* the features required by original equipment manufacturers. It's bright in appearance, attractive — designed to blend with newly manufactured products. Ends are uniformly flat-sided to speed installation with open-end wrenches — made of steel pipe coupling stock for *extra* strength. A special wedge-type bronze seat assures tightness. Zinc plating *even on threads* gives top rust protection. The price? — less than a galvanized, no more than a black malleable union.

Write for Free Samples!

DART UNION COMPANY
132 THURBERS AVENUE, PROVIDENCE 5, R. I.

▲ For more details circle NED-6326 on enclosed inquiry slip ▲

WILLSON MonoGoggles®

Keep You on the Safe Side

- Wide angle vision
- Replaceable lens—clear or green
- Front and side protection
- Fits over spectacles
- Form-fitting frame
- Lightweight comfort

Write for Descriptive Bulletin

WILLSON®
Dependable Products Since 1870

WILLSON PRODUCTS, INC., 219 Washington St., Reading, Pa.

▲ For more details circle NED-6327 on enclosed inquiry slip ▲

Less Walking—More Footage

Cut down waste welding time—increase footage up to 50%.

Use Worthington-Ransome Welding Positioners to tilt or turn the work—without delay.

No more walking around and climbing over the work piece, no more propping and flopping it. It's always in position for continuous downhand welding.

Welding Positioners: 100 lb to 30 tons capacity. Also Turning Rolls: 3 to 150 tons capacity, stationary or self-propelled.

Write for additional information to Worthington Pump and Machinery Corporation, Welding and Assembly Positioning Equipment Division, Dunellen, New Jersey.

WORTHINGTON

Y.1.4

▲ For more details circle NED-6329 on enclosed inquiry slip ▲

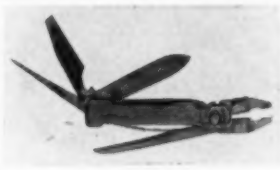
BOX CAR LOADER
is telescoping-bed conveyor unit

Flour, cement and other bagged or packaged goods are loaded into box cars easily with this improved Rapistan loader which weighs 250 lb less than former model and is easier to handle. Crank-operated telescoping bed section extends length up to 16½ ft when moving sacks to extreme end of car, and retracts to 8 ft as car is filled. Hinged delivery end locks at four angles for stacking convenience.

Distributed load capacity is 300 lb, and unit will handle up to 1500 hundred-pound sacks per hour at standard belt speed of 90 fpm. Main section is equipped with smooth conveyor belt, and delivery section has Ruff-Top rubber belting. Overall width of 37½ in. allows loader to be rolled easily through doors and aisles on large wheels and swivel casters. Made by **Rapids-Standard Co.**, Dept. BI, 342 Rapistan Bldg., Grand Rapids 2, Mich.

▲ For more details circle NED-6332 on enclosed inquiry slip ▲

COMBINATION TOOL
has wide variety of uses



Actually seven tools in one, this pocket combination tool is made entirely of forged and tempered steel and nickel plated. Manufactured in France, it includes pliers, screw driver, opener, knives, wire cutter, file and punch. The 1⅛ x 5½-in. tool is offered with leather case for $10.95. Introduced by **Emil Greiner Co.**, Dept. NE, 20-26 N. Moore St., New York 13, N. Y.

▲ For more details circle NED-6333 on enclosed inquiry slip ▲

ELECTRONIC DISPLACEMENT GAGE
acts as controller or indicator

Developed for use with Schaevitz linear variable differential transformers and Schaevitz pressure transmitters, type 131 electronic displacement indicator and controller has accuracy of plus or minus 2 per cent. It is usable as controller for leveling operations, remote indicator and controller for scales, torque indicator and controller, tension controller when testing materials for elongation, position controller in servo systems and as thickness controller. It can be used as controller or indicator, or both simultaneously. Range of displacement control is plus or minus 0.001 to 1.000 in. Displacements over plus or minus 1.000 can be handled by mechanical leverage. Pressure control is available in range from 0 to 10,000 psi. Instrument is powered from 110 v, 60 cycles. Made by **Sterling Instruments Co.**, 13333 Linwood Ave., Detroit 6, Mich.

▲ For more details circle NED-6334 on enclosed inquiry slip ▲

▲ For more details circle NED-6336 on enclosed inquiry slip ▲

Viking

● THE ORIGINAL COMPOUND SHEAR

CUTS WITHOUT KINKING
- Band Iron
- 1/4" Brass (any width)
- Copper, Sheet Iron Tin, Band Saws (any thickness or width)
- 12 Gauge Bessemer Steel

AS EASILY AS A TAILOR'S SHEARS THRU CLOTH

Applies the strength of **20 MEN** *at the blade*

● Viking, the original compound lever shear will cut straight, angle or circle without kinking metal. Removable, adjustable, cutting blades are of specially tempered ground alloy steel. They hold a keen edge for a long time.

IMMEDIATE DELIVERY $29

VIKING SHEAR COMPANY
1065 WEST 20th STREET • ERIE, PENNSYLVANIA

▲ For more details circle NED-6330 on enclosed inquiry slip ▲

PREVENT ACCIDENTS

by using AMERICAN Counter-Tred MATTING

IDEAL FOR USE

in shower stalls, kitchens, locker rooms, lavatories and around machinery where there is a minimum of oil.

Non-slip surface. Resiliency reduces fatigue. Exceptionally tough and long wearing under heaviest traffic. Made of cotton cord bound together with rubber compounds. Ridged bottom affords aeration and drainage. Rolls up for mopping of floor. ⅜-inch thick. 2 feet wide; any length in one-foot sections vulcanized together.

Consult your telephone directory for American Mat office or use coupon now for obtaining literature and prices.

AMERICAN MAT CORPORATION
1733 Adams Street Toledo 2, Ohio

( ) Please send prices on American Counter-Tred Matting. Please send information on ( ) Ameriflex Flexible Wood Link Matting; ( ) Tuf-Tred Rubber Fabric Link Matting; ( ) Do-All All-Purpose Rubber and Cord Matting; ( ) Vinyl Plastic Link Matting; ( ) Traffic-Tred Matting.

Name _____
Firm _____
Street _____
City & State _____

IN CANADA — Offices: American Mat Corporation, Ltd. Canada Trust Building, Windsor, Ontario; Factory: West Lorne, Ontario

▲ For more details circle NED-6331 on enclosed inquiry slip ▲

Save Time, Labor, Dollars!

TEST • STUDY • CONTROL
VISCOSITY

As Simply, Quickly and Easily as Taking Temperature Readings

Just a flick of a switch, then read the Brookfield dial, and you have your viscosity determination in centipoises. The whole operation, including cleaning up, usually takes *less than a minute.*

Available in a variety of models suitable for extremely accurate work with both Newtonian and non-Newtonian materials, Brookfield Viscometers are portable and plug in any A.C. outlet — *can be used in Lab, Plant or both.*

Write today for fully illustrated catalog showing Brookfield Viscometers adaptable to any viscosity problem *from less than one to 32,000,000 centipoises.*

BROOKFIELD COUNTER-ROTATING MIXER — Two concentric, oppositely rotating shafts, propeller equipped and driven by two motors, produce an annular flow and up to 48,000 scissor-like cuts/minute. Enable exceptionally fast, effective and efficient laboratory mixing. *Not* a "stirrer." Write for Brookfield MIXER brochure.

Brookfield ENGINEERING LABORATORIES, INC.
230 Porter St., Stoughton, Mass.

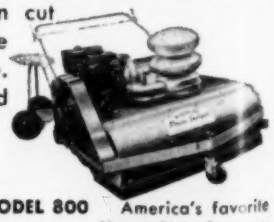
▲ For more details circle NED-6335 on enclosed inquiry slip ▲

Wilshire
REALLY PAYS OFF!

MODEL 1000
Super Heavy Duty with forward and reverse drive, 100% visibility.

CUTS *Your* SWEEPING COSTS 75%

Let's face it! The hand sweeper can be a grim reaper of your profits...as it has been in hundreds of large and small plants. Their answer?..."The Wilshire Power Sweeper!" It's doubly efficient because its two-way brush and vacuum action picks up everything from cigarette butts to pop bottles in one easy operation. It's doubly economical, too, because one man does the work of a cleanup crew. Make us prove how much the Wilshire Power Sweeper can cut your sweeping costs with a free demonstration on *your* job. Write for full information and dealer nearest you.



FACTORY TESTED...
90-DAY GUARANTEE
For dealer nearest you, write Dept. G-8.

MODEL 800 America's favorite Heavy Duty Sweeper with finger-tip dual control. (Sulky optional.)

Wilshire
POWER SWEEPER CO.
526 W. Chevy Chase Drive
Glendale 4, Calif.

"It's Sweeping the Country" SINCE 1940

▲ For more details circle NED-6337 on enclosed inquiry slip ▲

A fast, efficient 10-lb. indirect arc furnace

for small melts of bronze, iron, or steel

The type NS, 10 KW, 10 lb. Detroit Electric Furnace provides a unit which melts on short notice, melts speedily, and with excellent control of analysis and characteristics. A 6 pound heat of bronze melts in 6 minutes; an equal heat of alloy steel in 12 to 15 minutes. For research, experimental work, and small production, the NS furnace delivers high efficiency and simple, economical operation.

Write for complete information.

DETROIT ELECTRIC FURNACE DIVISION
KUHLMAN ELECTRIC COMPANY
1060 26th St. • BAY CITY, MICHIGAN

Foreign Representatives: In BRAZIL—Equipamentos Industrias "Eisa" Ltd., Sao Paulo; CHILE, ARGENTINA, PERU and VENEZUELA: M. Castellvi Inc., 150 Broadway, New York 7, N.Y.; MEXICO: Casco, S. de R. L. Atenas 32, Despacho 14, Mexico City, D.F.

▲ For more details circle NED-6338 on enclosed inquiry slip ▲

FEDERAL PRESS CO., 506 DIVISION ST., ELKHART, IND.

FEDERAL DIAL FEED PRESSES

26 YEARS OF QUALITY CONSTRUCTION

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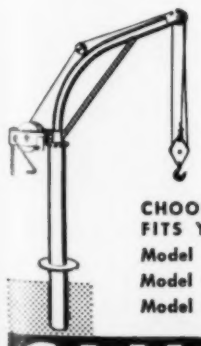
BLUE HERON TRUCK CRANE SAVES..

TIME • MONEY • LABOR

ONE MAN can handle up to ONE TON easily with BLUE HERON TRUCK CRANE—and with greater safety! Crane swivels through full circle and can be lifted from socket by one man—leaving truck body clear. Many operators equip all trucks with sockets, change cranes from truck to truck as needed. Simple to install!



CHOOSE THE MODEL WHICH FITS YOUR REQUIREMENTS
Model O.C.30A Cap. 500 lbs.
Model O.C. 30B Cap. 1000 lbs.
Model O.C.30C Cap. 2000 lbs.

CAM TOOL COMPANY, INC.
288 22nd STREET • OAKLAND 12, CALIF.

▲ For more details circle NED-6340 on enclosed inquiry slip ▲

SAFETY STORAGE BINS designed for holding combustibles

These metal safety storage bins are design for shipping and receiving rooms and other plant areas where excelsior, paper, rags, paint and other combustibles are used. They are fabricated of heavy-gage galvanized iron with reinforced angle iron corners and are fitted with fusible link so that cover closes automatically in case of fire. Bins are supplied in three sizes: 20 x 35 x 33; 21 x 48 x 37; and 24 x 58 x 37 in. Made by **Industrial Products Co.**, 2807 N. Fourth St., Philadelphia 33, Pa.

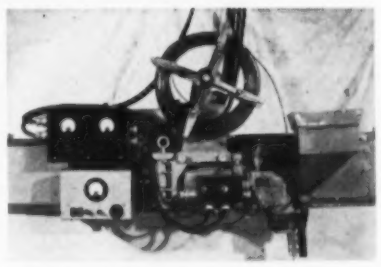
▲ For more details circle NED-6341 on enclosed inquiry slip ▲

HEAVY DUTY END MILLS have 2-in. shank, fast-cutting helix

Designed with ample chip clearance for heavy end milling cuts, Hi-Helix heavy duty end mills have 2-in. diameter shanks and fast-cutting helix. Kellering, die sinking and similar work can be performed with mills. Shanks are of Weldon type and have two set screw flats. Cutters range in diameter from 2 to 2½ in. and in length of cut from 4 to 6 in. They are made of high speed steel with right hand cut and right hand spiral flutes. Made by **Niles-Bement-Pond Co.**, Pratt & Whitney Div., 20 Charter Oak Blvd., West Hartford 1, Conn.

▲ For more details circle NED-6342 on enclosed inquiry slip ▲

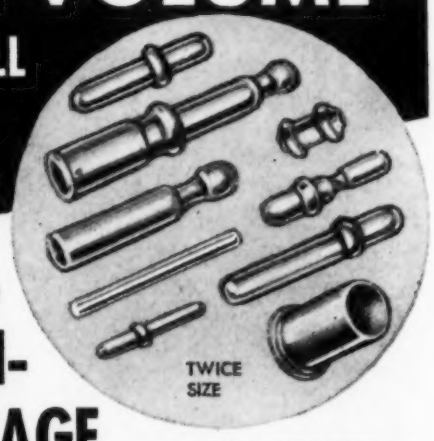
SEAM WELDING MACHINE welds light and heavy plates



Designed for permanent production installation, Unionmelt UE-48 welding machine will weld straight-line seams in light to heavy plate at high speeds. Machine consists of CM-48 side beam carriage, welding head, small rod reel, feed hopper and controls. Equipment is mounted on steel frame of carriage which rides on steel track made from standard steel plates. Welding current, carriage speed, voltage and material flow for job can be set into control mechanism before machine is started. Electronic governor controls speed of carriage between 3 and 200 ipm. Once set for desired welding conditions, operator switches machine on, then can proceed with other work. Head can be positioned at right angles or parallel to track. Made by **Linde Air Products Co.**, Room 308-NED, 30 E. 42nd St., New York 17, N. Y.

▲ For more details circle NED-6343 on enclosed inquiry slip ▲

Need VOLUME on SMALL PARTS like these?



Investigate **MULTI-SWAGE**

● If it's VOLUME you need on small tubular metal parts similar to these, be sure to look into Bead Chain's MULTI-SWAGE Process. Many prominent users of solid pins for electronic and mechanical purposes have cut costs by switching to Multi-Swaged *tubular* pins . . . without sacrificing strength or accuracy. Multi-Swage Parts serve in a wide variety of electronic and mechanical products. Send part (up to ¼" dia. and to 1½" length) and your specs for a quotation. Or write for DATA BULLETIN.

The BEAD CHAIN Mfg. Co.
TRADE MARK
16 Mountain Grove St., Bridgeport 5, Conn.
Manufacturers of BEAD CHAIN — the kinkless chain of a thousand uses, for fishing tackle, novelty, plumbing, electrical, jewelry and industrial products.

▲ For more details circle NED-6344 on enclosed inquiry slip ▲

READY MIXED "ROCK TRED"

a NEW floor ready for use IN 12 TO 24 HOURS

Heavy-Duty Rock-Tred offers the fastest, easiest, most economical method of obtaining a new, durable, heavy-load-bearing floor. Floors resurfaced with Spark-Proof Rock-Tred can be used for light service 12 to 16 hours after installation, and opened for heaviest traffic in 24 hours. Comes ready-mixed. Anyone can apply it. Extremely durable, no other re-surfacer equals its strength and lasting qualities. Handles any load that can be moved on wheels. Will not crack or crumble. It's the toughest floor on earth. Write for complete details. NOW!

ROCK-TRED Corporation
Manufacturers of a Complete Line of Building Maintenance Materials
7440-7450 North St. Louis Avenue • Skokie, Illinois
In Canada: Rock-Tred Corporation (Canada) Limited, Toronto 5

▲ For more details circle NED-6345 on enclosed inquiry slip ▲

even a surge to full atmosphere can't hurt this team..

The Philips gauge tube *contains a loop anode maintained at 3-kv d-c potential and permanent magnets to compress the electron paths. Its positive ion current is a measure of pressure over the range from .02 to 25 microns Hg.*

The thermocouple gauge tube *contains a junction to which heat is supplied at constant rate. Its temperature depends on heat loss by gas conduction, and is therefore a measure of pressure. It covers the range from 1 to 1000 microns Hg.*

DPi has combined the thermocouple gauge and the Philips gauge into a single instrument that's low in price, requires no special operating precautions, and covers the entire range from 2 x 10^{-5} mm. to 1 mm. Hg on a single meter.

The combination circuit uses three readily available radio tubes and three selenium rectifiers. It operates from any 115-v a-c outlet. No panel adjustments are necessary. All the operator does is turn it on and read the pressure. It can be calibrated, if needed, from the outside of the 10" x 8" x 8" cabinet. It's easily portable and requires no precautions against any pressure surges, even up to atmosphere.

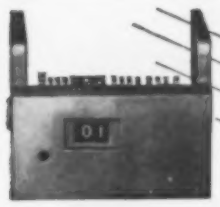
The new Combination Thermocouple and Philips Gauge is one more step in DPi's continuing program to make high vacuum simple and inexpensive to create, measure, and use. We'll be glad to discuss your requirements in detail and quote specific prices. Simply write to: ***Distillation Products Industries,*** Vacuum Equipment Department, 763 Ridge Road West, Rochester 3, N. Y. (Division of Eastman Kodak Company).

high vacuum research and engineering

DPi

Also . . . vitamins A and E . . . distilled monoglycerides . . . more than 3400 Eastman Organic Chemicals for science and industry

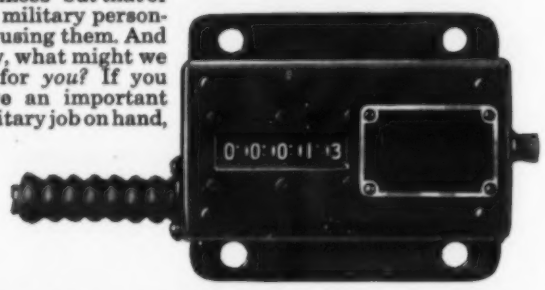
▲ For more details circle NED-6346 on enclosed inquiry slip ▲



A lot of "Military Intelligence" comes from counters like these... because every branch of the service... in fact...

Everyone Can Count on VEEDER-ROOT

Shown here are an aircraft and an artillery counter. What they do, and how they do it, is "nobody's business" but that of the military personnel using them. And now, what might we do for *you?* If you have an important military job on hand, you can count on us to help you just as quickly as our present military commissions will permit.

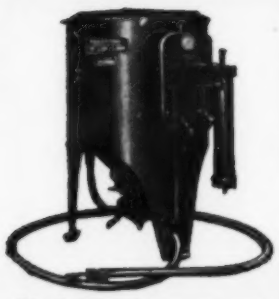


VEEDER-ROOT INCORPORATED
"The Name That Counts"
HARTFORD 2, CONN. • GREENVILLE, S. C.
Montreal, Canada • Dundee, Scotland

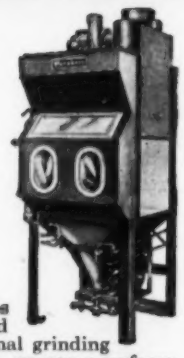
▲ For more details circle **NED-6347** on enclosed inquiry slip ▲

Here's BIG NEWS on Blast Cleaning Dust Control Precision Finishing

Blast Cleaning Unit is PORTABLE! Hydro-Finish SPEEDS POLISHING!

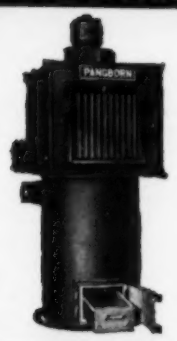


Ideal for maintenance and many other jobs, including removal of rust, dirt, scale, etc. Economically cleans large objects like tanks, bridges, structural work before painting. Six sizes, stationary or portable, from **$170.00** and up.



Removes scale and directional grinding lines . . . prepares surfaces for plating and holds tolerances to .0001"! Liquid blast reduces costly hand cleaning and finishing of molds, dies, tools, etc. Models from **$1295.00** and up.

STOP DUST at the SOURCE! COMPACT Blast Cabinet for SMALL WORK!



Pangborn industrial type Unit Dust Collectors trap dust at source. Machine wear is minimized, housekeeping and maintenance costs reduced. Solves many grinding and polishing nuisances and material losses. Models from **$286.00** up.

Ideal for producing clean, smooth surfaces on pieces up to 60" x 36" in size. Cleans metal parts, removes rust, scale, grime, dirt, paint, etc., in a few seconds. Saves money all year 'round. Models from **$315.00** and up.

Look to Pangborn for the latest developments in Blast Cleaning and Dust Control Equipment

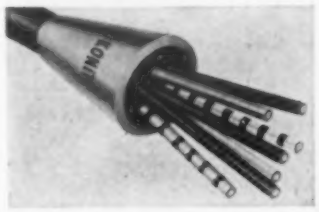
Pangborn MAIL COUPON FOR DETAILS

Check for more information
☐ Blast Cleaning Cabinets
☐ Blast Cleaning Machines
☐ Unit Dust Collectors
☐ Hydro-Finish Cabinets

PANGBORN CORP., 2400 Pangborn Blvd., Hagerstown, Md.
Gentlemen: Please send me more information on the equipment I've checked at the left.
Name.....
Company.....
Address.....
City.....Zone....State.....

▲ For more details circle **NED-6348** on enclosed inquiry slip ▲

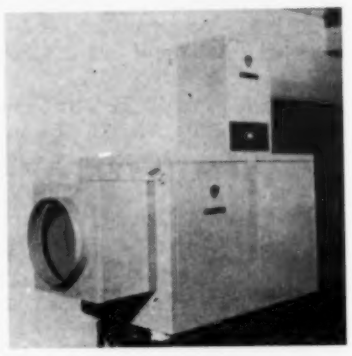
CABLE END SEAL
waterproofs ends of ¾-2-in. cable



Moisture seal for terminating multiconductor sheathed cables is slipped over end of cable. End seal is cone-shaped to receive high softening point filling compound which forms waterproof seal around each conductor. Neoprene device fits snugly over cable sheath, preventing leakage of compound which hardens into permanent seal. Made by **Okonite Co.**, Passaic, N. J.

▲ For more details circle **NED-6349** on enclosed inquiry slip ▲

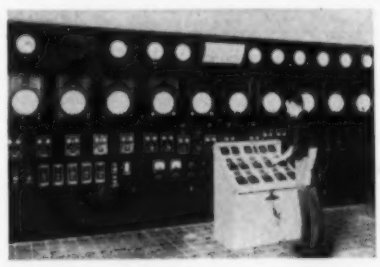
ELECTROSTATIC OIL PRECIPITATOR
reduces waste and fire hazards



Hazardous problems caused by fine oil mist emanating from high speed cutting and grinding machine operations can be eliminated with this electrostatic oil mist precipitator. It is based upon electrostatic principle of attraction. Oil mist from machining operations is charged as it passes through an electrostatic field and is attracted to plates of opposite polarity from which it drains into collecting pan for ultimate reuse. Adaptable for floor mounting or overhead ceiling suspension, precipitator protects machinery and factory interiors such as walls, floors and ceilings from oil mist which tends to coat these surfaces and create fire hazards and cleaning problems. Made by **Trion, Inc.**, Island & McCoy Rd., McKees Rocks, Pa.

▲ For more details circle **NED-6350** on enclosed inquiry slip ▲

MINIATURE CONTROL INSTRUMENTS
allow centralization in small area

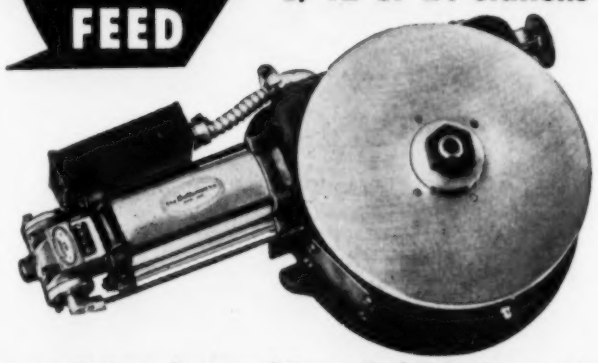


Mini-Line miniature controlling instruments will permit reduction in size of centralized control panels by as much as two-thirds. One instrument, the Multi-Point indicator, which shows at one time any number of related factors, uses 13 per cent of control panel area used by standard size counterpart. When mounted on panel similar to organ console, all controls and information necessary to operate one or more boilers, turbines or process units are concentrated in small area in front of operator. From this point he can place entire plant on automatic control or manipulate each unit individually. Photo compares control panel utilizing instruments of conventional size with console type panel with Mini-Line equipment. Made by **Bailey Meter Co.**, 1073 Ivanhoe Rd., Cleveland 10, O.

▲ For more details circle **NED-6351** on enclosed inquiry slip ▲

Electrically-Controlled Air-Powered DIAL FEED

Adjustable for 4, 6, 8, 12 or 24 stations



THE Bellows air-powered Rotary Feed Table is a complete "packaged" unit with all valves and valve operating controls built in. The built-in Electroaire Valve simplifies synchronized operation with drill presses, punch presses, arbor presses, etc. 10" diameter table top is geared to provide 4, 6, 8, 12 or 24 stations. Table top may be drilled, tapped, or otherwise machined for mounting jigs, fixtures or even larger size table tops.

• *Write today for Bulletin T-80. Address Dept. NED-851.*

1198

The Bellows Co.
Akron 9, Ohio

▲ For more details circle **NED-6352** on enclosed inquiry slip ▲

Fastener Problems? ESNA gives you over 3000 answers!

THE FAMOUS RED ELASTIC COLLAR IS VISIBLE EVIDENCE OF LOCKING SECURITY
Threadless and permanently elastic, it provides these 4 outstanding features:
1. Protects against nuts loosening due to VIBRATION
2. Keeps locking threads CORROSION FREE
3. Provides for accurate BOLT LOADING
4. Seals against LIQUID LEAKAGE along the bolt threads

When you design new products, look to ESNA for vibration-proof answers to your fastening problems. Plan now to give your assemblies—and your customers—the self-locking protection provided by Elastic Stop Nuts.

Let the readily identified Red Elastic Collar tell users this story about your products: that fastenings will remain tight... that precise adjustments will hold true... and that *your* investment in quality fasteners will reduce *their* maintenance costs.

And, to simplify your assembly operations, you'll find there are over 3000 various sizes and types of Elastic Stop Nuts ready to cut manufacturing costs. Standard parts are available that may be clinched to sheet metal... press fit... or pre-positioned by riveting or welding.

GET FREE ESNA PRODUCT LINE BULLETIN—Get a head start on tomorrow's new product designs by bringing yourself up to date on the latest fastening devices. Write ESNA for helpful data or the name of their nearest engineer. Elastic Stop Nut Corporation of America, 2330 Vauxhall Road, Union, N. J.

ESNA ELASTIC STOP NUTS

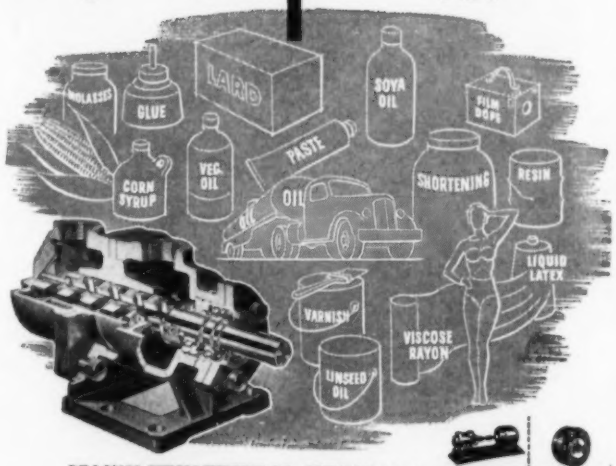
▲ For more details circle **NED-6353** on enclosed inquiry slip ▲

what do you want to pump?

We frankly don't know all the products that an IMO can pump, but if you want a better way to transfer fluids like these from one place to another, chances are an IMO can do the job for you.

The IMO is a screw-type rotary pump. Its axial flow design permits liquids to be pumped close to the rotating axis of the rotor. This means low liquid velocity through the pump and quiet pulsation-free flow. Capacities range to 1000 gpm at 500 psi and 150 gpm at 1500 psi.

Write for Bulletin I-162-W



DE LAVAL STEAM TURBINE CO., TRENTON 2, N. J.
IMO-DE LAVAL PRODUCTS DIVISION
DE LAVAL

▲ For more details circle **NED-6354** on enclosed inquiry slip ▲

For HIGHEST ELECTRICAL & MECHANICAL Efficiency!

New JONES 2400 SERIES PLUGS & SOCKETS

Improved Socket Contacts. Four individual flexing surfaces. Positive contact over practically their entire length.

Both Plug and Socket Contacts mounted in recessed pockets greatly increasing leakage distance, INCREASING VOLTAGE RATING. Plug and Socket Contacts cadmium plated. Add to appearance of your equipment. Interchangeable with Jones 400 Series.

Ask for Catalog 18. Complete line Jones Plugs, Sockets, Terminal Strips.

P-2406-CCT
Plug — with cable clamp in top.

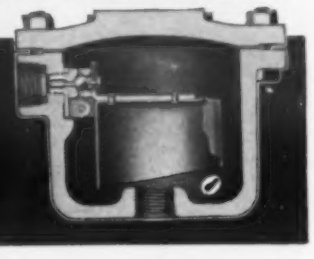
S-2406-SB
Socket with shallow bracket for flush mounting.

Jones
HOWARD B. JONES DIVISION
CINCH MANUFACTURING CORPORATION
CHICAGO 24, ILLINOIS
SUBSIDIARY OF UNITED-CARR FASTENER CORP.

▲ For more details circle **NED-6355** on enclosed inquiry slip ▲

HOW TO GET RID OF CONDENSATE RAPIDLY

CRANE inverted open float steam traps



WORKING PRESSURES: 1 to 300 pounds saturated steam

You can increase your plant efficiency with Crane Inverted Open Float Steam Traps. They not only remove condensate as rapidly as it accumulates, but save many fuel dollars by recovering it for heating, hot water needs, or for return to boilers.

Discharge capacities are high, even though these traps are small and compact. Easy to install, Crane Steam Traps require only routine maintenance. Only major moving part is the float which actuates disc through a simple lever.

For more complete information, ask your Crane Man about them, or SEE YOUR No. 49 CRANE CATALOG.

CRANE CO., 836 S. Michigan Avenue, Chicago 5, Ill.
Branches and Wholesalers Serving All Industrial Areas

CRANE *Everything for Every Piping System*

VALVES • FITTINGS • PIPE • PLUMBING AND HEATING

▲ For more details circle NED-6356 on enclosed inquiry slip ▲

"PUSH BUTTON" STENCIL MARKING!

Here's the *modern* way to mark a stencil address in three seconds! Finger tip control of ink flow assures neat, attractive marking on your shipments.

Holds ink for 500 addresses. NEW MODEL HAS THESE FEATURES: Light weight, complete Brush only 6½ ounces. Handle has non-slip grip. Can't leak or clog. Genuine China bristle in replaceable brush tip. Thousands of shipping departments use Marsh Fountain Brushes. Pays for itself in three days! Write for FREE booklet.

MARSH STENCIL MACHINE CO.
23 MARSH BUILDING • BELLEVILLE, ILL., U. S. A.

▲ For more details circle NED-6357 on enclosed inquiry slip ▲

PERMANENT PROTECTION for man and machine with ELASTICONE GUIDE PIN COVERS

Protects Pins and Bushings from nicks & scratches. Prevents injuries to Die Setters & Operators.

Elasticone Guide Pin Covers are manufactured in all stock sizes. Specify O.D. of Bushing and full open height of Set when ordering.

Write today for Technical Data Sheets

Central Safety Equipment Co.
2200 E. HUNTINGDON STREET
PHILADELPHIA 25, PA.

▲ For more details circle NED-6358 on enclosed inquiry slip ▲

TWO-JAW DRILL CHUCK available in three sizes

Simple in design and construction, this Swedish-made two-jaw drill chuck is offered in the following capacities: 0 to ½-in., 0 to ¾-in. and 0 to 1-in. Morse taper arbors are available as well as replacement parts, and a T-handled operating wrench is supplied with each chuck. Another feature is the steel collar which reinforces upper part of chuck housing. Distributed by **Westcott Chuck Co.**, 1200 E. Walnut St., Oneida, N. Y.

▲ For more details circle NED-6359 on enclosed inquiry slip ▲

LIQUID LEAK DETECTOR uses principle of fluorescence

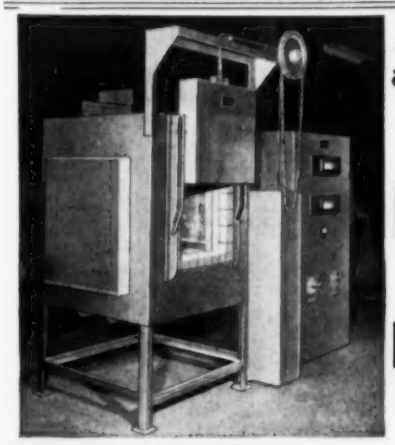
Detection of liquid leaks in vessels of all kinds and sizes is possible with battery operated Raymaster model TFS4-B90-Blacklight Exploring lamp. A dilute solution of effective fluorescing agent is placed inside container or vessel to be tested. Slightest flow through wall is signalled by bright glow under influence of rays from ultraviolet lamp. Fluorescing agents are water and oil soluble. Leak detector should be used in darkened area. Announced by **George W. Gates & Co.**, 500 Hempstead Turnpike & Lucille Ave., Franklin Sq., L. I., N. Y.

▲ For more details circle NED-6360 on enclosed inquiry slip ▲

STRIP STOCK REEL feeds automatic punch presses

Snatching action resulting from coiled stock eccentricity is overcome by this automatic stock reel which allows strip stock to uncoil from horizontal position on ball bearing mounted turntable as it is fed to punch presses. Freely-rotating reel is propelled by natural spring of material which develops torque as it uncoils. Should reel speed exceed rate of feed demand, coiled material will retard motion by internal brake action on center of coil, thus maintaining exact feed requirement of press. Made by **Jaco Devices, Inc.**, 102 High St. N., Hingham, Mass.

▲ For more details circle NED-6361 on enclosed inquiry slip ▲



Accurate control at all heat levels up to 2500° F. with this new PERECO Shop Furnace

General-purpose Model FG-7800

This single Pereco Shop Furnace covers the full range of heat-treating requirements. Produces uniform, clean, electric heat up to 2500° F. for hardening, annealing, normalizing, etc. Roomy work chamber is 24" l., 18" w., 18" h., thickly insulated. Gas-tight case is heavy-gauge steel. Atmosphere connections available. Door is wedge-fit, heat-seal type. Easy to open and shut by chain hoist. Separate panel mounting puts all operating controls in handy reach. Complete "FG" series includes furnace models in various sizes. Let us send you details. Write today.

PERENY EQUIPMENT CO.
Dept. G, 893 Chambers Rd., Columbus 12, Ohio

PERENY EQUIPMENT COLUMBUS OHIO

EXPORT DEPT.—The Inland Export Co., Inc., Greer Bldg., New Castle, Pa.

• STANDARD AND SPECIAL FURNACES FOR TEMPERATURES 450° TO 5000° F.

▲ For more details circle NED-6362 on enclosed inquiry slip ▲

VARGLAS permafil SLEEVING

Shortly after our first announcement of Varglas Permafil Tubing, engineers began praising its many features — especially its extra flexibility and toughness.

Now, for the first time, Varglas Permafil Sleeving is available in N.E.M.A. grades C-2 and C-1. This new sleeving is lighter coated than the Permafil Tubing but it frequently does the insulating job where tubing was formerly used — and, of course, the cost is much less. Available in coils. Write for free test samples and prices.

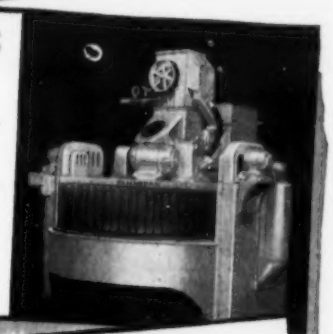
VARFLEX CORPORATION
310 Jay St. Rome, N.Y.

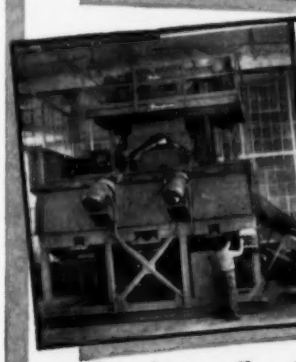
▲ For more details circle NED-6363 on enclosed inquiry slip ▲

Let PANGBORN Solve your Blast Cleaning Problem!

BATCH Cleaning: For top-economy batch cleaning specify Pangborn ROTOBLAST* Barrels. Sizes available from 3½ to 28 cubic feet. All models have push-button operation, automatic abrasive recovery and automatic loading device.

SEMI-CONTINUOUS Cleaning: Specify Pangborn ROTOBLAST* Tables. Type LF cleans flat castings; type LG cleans intricate pieces. Type LH, with two tables, lets operator load one table while work is cleaned on the other.





CONTINUOUS Cleaning: Pangborn Continuous-Flo ROTOBLAST* Barrels and one man provide uninterrupted cleaning. Loading and unloading is automatic, work is cleaned as it moves through Barrel.

Pangborn offers ROTOBLAST* equipment for every cleaning need. Full details on Tables, Barrels, Table-Rooms and Rooms are included in Bulletin 214. For your free copy *Mail Coupon Today!*

Look to Pangborn for the latest developments in Blast Cleaning and Dust Control equipment.

Pangborn *Trademark of Pangborn Corporation

BLAST CLEANS CHEAPER with the right equipment for every job.

PANGBORN CORP., 2400 Pangborn Blvd., Hagerstown, Md.
Gentlemen: Please send me Bulletin 214 without obligation.
Name.....
Company.....
Address.....
City.....Zone.....State.....

▲ For more details circle NED-6364 on enclosed inquiry slip ▲

BEATS CORROSION AND DUST!

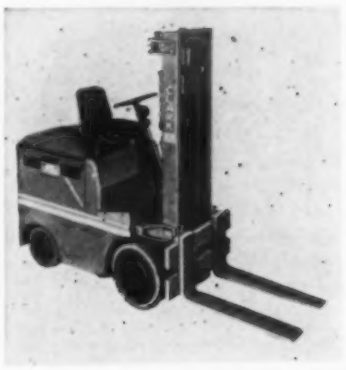
IN CHEMICAL, liquid fuel, milling, coal handling — any industry faced with corrosive vapors, combustible or dust laden atmospheres — Type 371 General Purpose Starters will give unfailing start-stop service, and complete protection! Wall-mounted design permits low original cost . . . space saving, economical installation. This starter is small enough to be located near the controlled motor.

Rolling-wiping contact action . . . low inertia moving parts . . . automatic reset temperature overload relays and other features add up to longer use without maintenance. Select Type 371 Motor Starters for 2300 volt squirrel-cage motors to 350 horsepower. Call your nearby A-C representative or write to Allis-Chalmers, Milwaukee 1, Wisconsin, for Bulletin 14B7274. A-3452

ALLIS-CHALMERS

For more details circle NED-6367 on enclosed inquiry slip

FORK-LIFT TRUCK
automatic acceleration eliminates jerk when power is applied

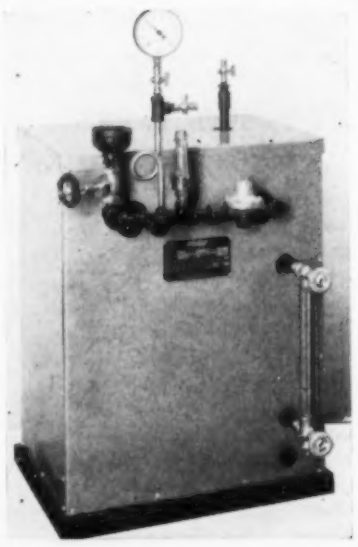


Fingertip control lever on steering column of electric Carloader fork-lift truck makes possible selection of travel direction and engagement of first point of power simultaneously. Automatic acceleration eliminates jerky movement, shifts from one point of power to another being timed automatically in accordcordance with torque requirements. No-kick-back steering axle pivoted on rubber torsional bearings eases steering. "Deadman" brake is linked to driver's seat and operates off drive shaft of drive motor.

Battery compartment is hinged at center to permit charging and servicing of battery without removal from truck. Model 4024 has 4000-lb capacity. Overall length less forks is 76¾ in., width is 41 in., wheelbase is 44 in. and outside turning radius is 74 in. Model 5024 has 5000-lb capacity, 78-in. overall length, less forks and 41-in. width. Wheelbase is 48 in. and outside turning radius is 78 in. Above specifications are for truck with lead-acid battery. Alkaline battery-equipped trucks are available also. Made by **Clark Equipment Co.**, Industrial Truck Div., 1952 Arze St., Battle Creek, Mich.

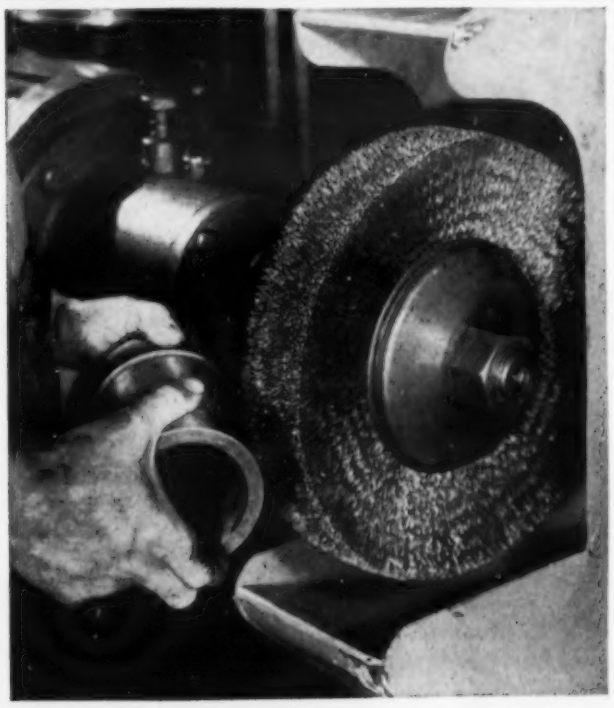
For more details circle NED-6369 on enclosed inquiry slip

ELECTRIC STEAM BOILERS
in 1½-hp low and high pressure units



Maximum steam pressures of 15 and 50 psi are generated respectively by model LP-1½ and model 400-1½ Speedylectric boilers. These units extend pressure range of 1½-hp boilers from 15 to 250 psi in complete line. Models are available for operation on 220, 440 or 550-v single phase ac and require 15-kw input for maximum steam output. Heat is generated by resistance of boiler water to flow of current between metal electrodes, and power input stops if there is no water in boiler. Current consumption is controlled automatically to maintain desired steam output, pressure and temperature. Accessory feeders are available for continuous operation. Both units are Underwriters' Laboratories listed. Made by **Livingstone Engineering Co.**, Dept. 165, 100 Grove St., Worcester 5, Mass.

For more details circle NED-6370 on enclosed inquiry slip



What puts zip into 1001 "removing" jobs?

...*The right brush!* The world's favorite general purpose power brush for saving man-hours on surface cleaning jobs is the Osborn Master® Wheel Brush. This dense, wide-face wire wheel brush cuts fast and lasts for a long, long time on all kinds of work such as:

Removing scale from steel parts (as shown above) . . . preparing surfaces for welding . . . removing rust, grit and old paint . . . deburring metal parts . . . roughing up rubber.

Make sure your production and maintenance departments are using Osborn Master Wheel Brushes to save man-hours! Order them from your Industrial Distributor along with other mill supplies. *The Osborn Manufacturing Co., Dept. 498, 5401 Hamilton Ave., Cleveland 14, O.*

How to save purchasing time. By ordering all your Osborn Maintenance Brushes from your Industrial Distributor, you can save countless purchasing man-hours. Grouping these orders with other mill supplies orders, eliminates duplication of purchasing time, costly paper work and excessive plant inventory. Simply specify Osborn for *all* your brush needs and have them ordered *automatically.*

OSBORN

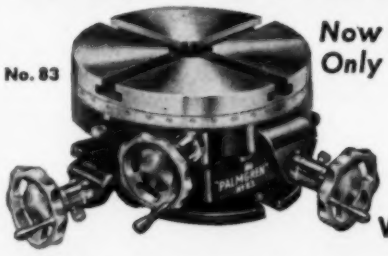
LOOK FOR THE NAME OSBORN . . . RECOGNIZED EVERYWHERE FOR QUALITY WORKMANSHIP AND MATERIALS

For more details circle NED-6368 on enclosed inquiry slip

DUAL CROSS and ROTARY FEED

PALMGREN

Rotary, Index, Milling Table



No. 83

Now Only $54.50

Turns Your DRILL PRESS Into A VERTICAL MILLER

Think what this will mean in your shop! Can be used on any Drill Press, Lathe or Milling Machine and provides what is practically a universal milling machine.

Designed for use in all types of metal and woodworking shops. A precision table permitting fine work to close tolerances. It is accurate, speedy, well constructed and attaches quickly in a firm position.

Rotary feed calibrated in degrees; Cross feed in thousandths; Dual Cross Slide with cross feed 2⅛" each side of center or 4¼" overall. Has acme thread cross feed screws, adjustable gibs on cross slides. 40 to 1 worm and gear ratio in rotary feed. Equipped with bolt slots and locking screws.

No. 83 Table Dia. 8", T-Slots ⅜", Base Keyway ⅜", Base Dia. 6¼", Ht. 5", Wt. 37 lbs. Price Only $54.50. Other Types available. No. 82 Dual Cross Feed only $43.75; No. 86 Rotary Feed Only $46.70.

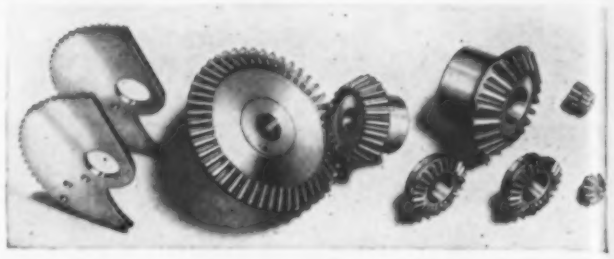
Order Today! If dealer can't supply, write us. Ask for Circular No. 354

CHICAGO TOOL and ENGINEERING CO.

Mfrs. of PALMGREN PRODUCTS Since 1918

8378 South Chicago Ave. • Chicago 17, Ill.

For more details circle NED-6371 on enclosed inquiry slip



Rynel fractional h. p. **Gears**

For All Small and Medium-Sized Gear Applications

Controlled Blank to Finished Gear

Rynel Certified Gears are made exactly to your specifications. Accuracy, tooth form and finish are controlled from the start with accurately formed blanks from our own gear blanking department. Experienced gear men cut true tooth forms with the latest precision equipment. Finished quality is checked by skilled gear inspectors. • That's why designers, engineers and product development men recognize Rynel Certified Gears for quality and dependability.

SPUR • HELICAL • WORM • WORM GEAR
INTERNAL • SEGMENT • SPROCKET • RATCHET
FINE PITCH • STRAIGHT-TOOTH BEVEL GEARS

Send For Our Latest Bulletin

Rynel Corporation
302 MILLER ST., STERLING, ILLINOIS

For more details circle NED-6372 on enclosed inquiry slip

NEW APPROVED PUMP makes liquid handling SAFER

These new Tokheim Hand Pumps are a great boon to industrial safety. They stop wasteful dripping and slippery floors, reduce fire hazard and accidents, and save on drum storage space. At the same time, their fast, easy double-action speeds production, reduces costs. Ideal for many liquids. Available in hose and spout models for use with drums or underground tanks.

Approved for use with petroleum liquids — ideal for many others.

WRITE FOR LITERATURE

QUALITY TOKHEIM DOUBLE-ACTION HAND PUMPS

General Products Division
TOKHEIM OIL TANK AND PUMP COMPANY
1656 Wabash Ave., Fort Wayne 1, Ind.
Factory Branch: 1309 Howard St. San Francisco 3, California

For more details circle NED-6373 on enclosed inquiry slip

test this three-way

Vibration Protection

FREE sample kit demonstrates locking efficiency of . . .

SHAKEPROOF LOCK WASHERS

Because exclusive tapered-twisted teeth provide spring tension, strut action and curved line bite for holding, bracing and anchoring, Shakeproof Lock Washers will protect the fastenings in your product from the hazards of vibration encountered in shipment, in handling and in use. Prove it to yourself . . .

Write for free test kit today!

Request Kit No. 21 which contains a wide range of types and sizes for your own testing purposes.

SHAKEPROOF inc.
fastening Headquarters
DIVISION OF ILLINOIS TOOL WORKS
2501 North Keeler Avenue, Chicago 39, Illinois

For more details circle NED-6374 on enclosed inquiry slip

Sure it threads faster and easier... it's a TOLEDO

He's happy about the whole set-up! His boss always makes sure that genuine TOLEDO Pipe Tools are on the job! These are the tools preferred by better mechanics everywhere for nearly half a century . . . *easy handling, faster cutting.*

Insist on TOLEDO for the finest in pipe threading and cutting tools and power machines! Designed to speed the work and assure fast make-up and trouble-free joints. Write for catalog. The Toledo Pipe Threading Machine Co., Toledo, Ohio.

Complete Toledo line includes Hand Tools, all pipe sizes, ⅛" to 12" and ¼" to 1" bolts. Power pipe machines, up to 2" and 4" capacity.

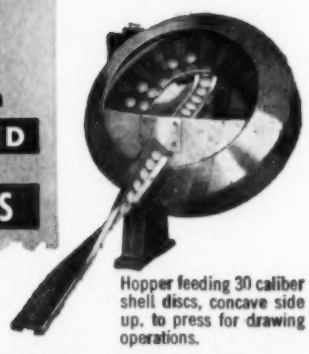
TOLEDO
FOR PRECISION PIPE TOOLS

For more details circle NED-6375 on enclosed inquiry slip

FULL SPEED AHEAD

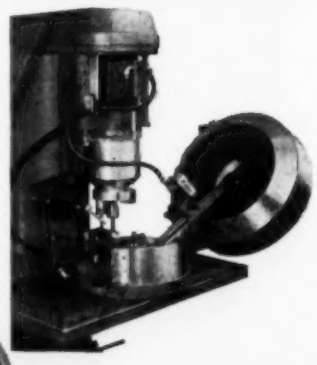
IS THE PRESENT-DAY DEMAND and You Can Command It With

D.P.S. MOTORIZED Selective Feeding HOPPER UNITS



Hopper feeding 30 caliber shell discs, concave side up, to press for drawing operations.

Modern production methods demand more speed and accuracy in the selection and feeding of parts than can be accomplished by hand... Our 25 years experience as pioneers in the assembly field enables us to ably meet this demand with the D.P.S. Motorized Hopper Units, the outstanding selective feeding devices with which production parts of a wide variety are selected, oriented and fed in a given position for primary and secondary operations... They are a completely self-contained unit, including drive and feed track. They are easily adaptable to presses, centerless grinders, thread rolling and slotting machines, also special machines... Six sizes, 8", 10", 12", 16", 24" and 30" diameters for handling various sizes of parts. No matter what your feeding problem is, we can meet your requirements. Designers of special equipment will also be interested.



Sixteen-inch hopper mounted for tapping machine equipped with air-operated dial—completely automatic operation.

Counting and feeding hopper with adjustable escapement to accommodate varying quantities.

Send for further details, also information about D.P.S. Power Screwdrivers, Nut Drivers and Special Assembling Machines.

1926 Our 25th ANNIVERSARY 1951

DETROIT POWER SCREWDRIVER CO.
2819 W. FORT ST. DETROIT 16, MICH.

For more details circle NED-6376 on enclosed inquiry slip

ELECTRICAL CONTROL SYSTEM reacts to voltage changes as small as ½-volt

Making use of a recently discovered principle, Sensivolt electrical control device can be made to control electrical machinery by reacting to very slight changes in voltage of alternating current. It involves resonant electrical circuit similar to constant voltage transformer. Responding to changes as small as ½-v, device makes it possible to have static alternating current voltage sensitive control capable of differentiating small changes in alternating current voltage and handling large amounts of power.

Application can be to react automatically to unpredictable fluctuations in line voltage, or it can be stimulated deliberately by modulating voltage at power source. Remote operation of auxiliary power equipment at isolated stations, protection of motors and other electrical equipment against high or low voltage, step-by-step voltage regulation and control of several selective voltage circuits from single variable source are possible uses.

Device is not a catalog item, but must be engineered to need of potential user. Controls can be made for any power system frequency, but it is necessary to have a fixed frequency. Developed by **Sola Electric Co.**, 4633 W. Sixteenth St., Chicago 50, Ill.

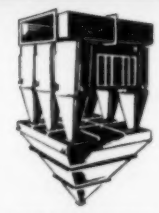
For more details circle NED-6377 on enclosed inquiry slip

CORE ROD STRAIGHTENER & SHEAR makes possible reuse of core rods

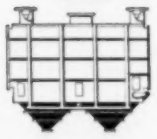
Elimination of waste of skilled labor and material is possible with core rod straightener and shear machine which enables foundry operators to use same core rods and gaggers several times. Machine will operate as fast as material can be fed into it. Two heavy alloy steel dies, one moveable and the other stationary, straighten one rod at a time. Dies close as contracting square upon work and straighten it by blow delivered simultaneously on four sides. Big kinks are removed first in bending jaws. Rods also can be sheared to desired length on machine which is built in four sizes for straightening rods with diameters from ⅜ to 2½ in. and shearing up to 1½-in. diameter rods. Gagger-forming attachment (optional) accommodates up to ⅝-in. diameter rods and is built to make right angle bend in one operation. Minimum air pressure of 90 psi operates machine. Made by **American Wheelabrator & Equipment Corp.**, 508 S. Byrkit St., Mishawaka, Ind.

For more details circle NED-6378 on enclosed inquiry slip

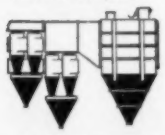
buell KNOWS DUST RECOVERY



Buell (van Tongeren) Cyclone



Buell 'SF' Electric Precipitator



Combination Cyclone-Precipitator Unit

WHENEVER industrial engineers discuss valuable dust recovery, Buell is the big name mentioned. For Buell offers knowledge and capabilities in dust recovery second to none. Only Buell Precipitator recovers ultra-fine dust with "Stedi-flow" dust fall – continuous cycle rapping that means constant peak efficiency. Buell large diameter cyclones do not plug, require next to no maintenance. Complete details on both types of equipment are available. Buell Engineering Co., Suite 5032, 70 Pine St., New York 5, N. Y.

buell
Engineered Efficiency in **Dust Recovery**

For more details circle NED-6379 on enclosed inquiry slip

Safe hands cut costs 5 ways

2 of many types, functionally designed for working hands:

Multi-ply coating of NEOX—reinforced neoprene, extremely resistant to cutting, abrasion and chemicals. Fabric lining prevents snags, absorbs sweat, insulates, makes gloves easy on and off. Firm non-slip grip.

Natural rubber treaded palm and thumb. Has firm grip, wet or dry; wears like a tire.

We have the case records of hundreds of on-the-job tests, handling sharp, abrasive and slippery materials, with and without the presence of heat, oils, greases, acids, caustics, solvents and degreasants—where proper selection of work gloves has resulted in:

1: Fewer lost-time accidents
2: Faster, surer work handling
3: Less spoilage
4: Improved job attitude
5: And 40% to 70% savings in usual glove costs.

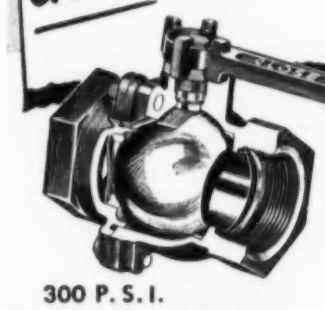
There's a correct glove for every job. Smart management makes it available.

Edmont
Edmont Manufacturing Company
1240 Walnut Street, Coshocton, Ohio

World's largest maker of coated industrial gloves

For more details circle NED-6380 on enclosed inquiry slip

does the job better!



ROCKWOOD ball VALVES

300 P. S. I. WORKING PRESSURE

The *most dependable* and *efficient performing* Valve on the market. Every Rockwood Valve is designed and built to give you longer and more economical service.

The full *round* flow — leak proof service — quick opening and closing features of the Rockwood Ball Valve give you better and faster service with no maintenance. When you install a Rockwood Valve on the line, it does the job better.

For use in oil refineries, food, paper, textile, chemical and rubber plants, etc. Write for sizes and prices and for bulletin V-4.

Distributors in all principal cities.

ROCKWOOD SPRINKLER CO.
44 HARLOW STREET WORCESTER 5, MASS.

For more details circle NED-6381 on enclosed inquiry slip

LET Clarke SHOW YOU . . .

A Better Way of Floor Care!

Only actual use can demonstrate the overall superiority of Clarke maintenance machines. Widespread use in churches, schools, hotels, hospitals and industry is only partial assurance of guaranteed performance. We want to show **you** — on your own floors — why Clarke machines have long been preferred for all phases of floor care.

Sales and Service Branches in All Principal Cities

CLARKE SANDING MACHINE COMPANY
228 Clay Street, Muskegon, Mich.
Please rush me hints on easier and faster floor care and more information on the following machines:
Clarke Floor Maintainers ☐
Clarke Wet and Dry Vacuum Cleaner ☐
Please arrange a free demonstration ☐
NAME_____
ADDRESS_____
CITY_____ ZONE____ STATE_____

HERE IS JUST PART OF THE CLARKE LINE:

CLARKE FLOOR MAINTAINERS
Four sizes for any application. Scrub, wax, polish, steel wool, sand, and shampoo. Improved safety switch. "Self-lifting" wheels.

CLARKE WET and DRY VACUUM CLEANER
Picks up water, dirt. Quick dump valve, no lifting. Powerful suction . . . neoprene hose.

For more details circle NED-6382 on enclosed inquiry slip

SEND FOR BULLETIN C-1 TODAY

Instantly leaves a bright clean surface because it is the only cleaning device that provides hydraulic force scrubbing action. The Sellers Hi-Pressure Jet Cleaner has no pumps, no motors, requires no power. It is performance proven in over one-thousand plants.

HIGH TEMPERATURE ...SOFTENS
HIGH PRESSURE ...LOOSENS
LARGE VOLUME ...KEEPS MOVING

SELLERS Injector CORPORATION
Since 1860
1631 Hamilton Street • Philadelphia 30, Pa.

For more details circle NED-6383 on enclosed inquiry slip

for easier **MATERIALS HANDLING**

STRONG!
TOUGH !!
LIGHT !!!

TRUCKS & TOTE BOXES

You can't get more wear or longer life from any other type of tote-box or truck, than you get *built right in* these lightweight, vulcanized and reinforced

BAL PLASTIC FIBRE PRODUCTS

So light that girls can handle them loaded with lightweight parts; sturdy enough to carry heavy parts and defy constant usage and drudgery. Double-strength corners; steel "elbows" to ward off damage. Hard smooth surfaces with no rough edges. Made in all sizes. Catalog shows many types of trucks; tote-boxes for many industrial needs. *Send for details!*

BAL BUILT WITH A CONSCIENCE

WILLIAM BAL CORPORATION
11 Johnson Street, Newark 5, N. J.

For more details circle NED-6384 on enclosed inquiry slip

THE NEW SEMCO NIBBLER PRESS

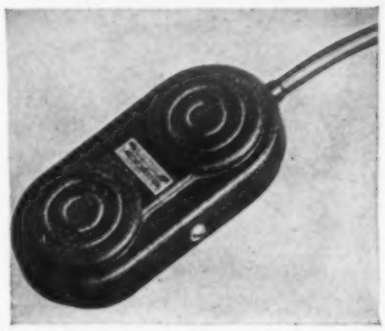
PUNCHES HOLES ANY SHAPE — ANY SIZE UP TO 12" X 4½" AT ONE SETTING.
NO SPECIAL DIES ARE NEEDED

Write for latest literature, prices and information to—

SERVICE MACHINE COMPANY
INCORPORATED
202 MILLER STREET, ELIZABETH, N. J.

For more details circle NED-6385 on enclosed inquiry slip

FOOT SWITCH
features interlock safety device



Weighing 10 oz and housed in black crackle finished metal casing, Linemaster Lektro-Lok dual foot switch has mechanical interlock which prevents both circuits from being operative at same time. Pressure on one side opens or closes line. Release of pressure returns switch to normal off position, independent of first. Both interiors can be wired normally open or normally closed. All wiring connections are made internally. Switch is suited to control of sound transmission equipment, appliances and intercommunication system. Made by **Simonds Machine Co.**, P. O. Box 261, Southbridge, Mass.

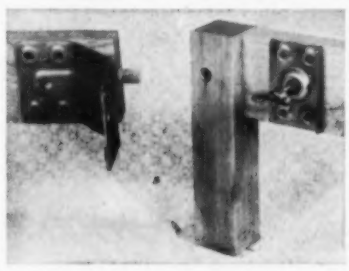
For more details circle NED-6386 on enclosed inquiry slip

PAPER CUTTING RACK
for use in packing departments

Designed to support two rolls of heavy or multicushioned paper, this paper cutting rack has a special tool which cuts paper by slitting action across the roll. Usable by shippers and in packaging departments, rack illustrated has 60-in. cutting knife with 48-in. stroke. It is easily adapted to accommodate other sizes by changes in length of certain Unistrut framing members. Developed by **Unistrut Products Co.**, Dept. 75, 1013 W. Washington Blvd., Chicago 7, Ill.

For more details circle NED-6387 on enclosed inquiry slip

CORNER LOCK
used as furniture corner brace



Designed as bed side rail connector, Corner Lock furniture connecting hardware can be used as corner brace in chairs, sofas, chair frames and tables when knocked-down construction is desired. Installation requires only one or two-spindle boring machine. Side rail can be as narrow as 3 in., resulting in lumber savings. Once installed, side rail is prevented from twisting. No tools are required for assembly after brace is installed. Made by **Rudolph Industries**, Dept. E, 283 W. Sixteenth St., Holland, Mich.

For more details circle NED-6388 on enclosed inquiry slip

For more details circle NED-6389 on enclosed inquiry slip

around the world, it's
HOOVER BALLS
made of
CHROME STEEL • CARBON STEEL • STAINLESS STEEL
BRASS • BRONZE AND MONEL METAL

"America's Foremost Ball Manufacturer"

HOOVER BALL and BEARING CO.
Ann Arbor, Michigan

For more details circle NED-6390 on enclosed inquiry slip

BUILD WITH GIANT G-P PANELS

Standard 12', 14' and 16' lengths or "Scarfed" to suit your needs

Georgia-Pacific giant Fir Plywood panels are helping to solve production problems and are saving installation time and money in countless industrial, construction and marine uses.

Quality-produced by modern hot plate presses, these extra-length panels are available in natural 12 ft. or scarfed 14 ft. and 16 ft. lengths. Special sizes to meet your specific application can also be produced.

Write, wire or phone your nearest G-P office for prices and size recommendations to fit your particular application.

GEORGIA—PACIFIC
PLYWOOD COMPANY
616 North Capitol Way, Olympia, Washington

Offices or Warehouses in: Augusta • Birmingham • Boston • Chicago • Columbia • Louisville • Memphis • Nashville • Newark • Philadelphia • Portland • Olympia • Raleigh • Richmond • Savannah

For more details circle NED-6391 on enclosed inquiry slip

For heating water, oils, tars, greases, plating baths, pickling solutions, etc.

"Packaged" Chromalox Electric Heaters, combining heater and thermostat, are the economical, efficient solution to many heating problems. Uses include: heating tanks, drums and process kettles; melting greases, asphalts and similar viscous fluids; heating degreasing, pickling and plating baths. Available with sheaths of copper or steel, and with lead for use in corrosive solutions. Types, sizes and ratings to meet your needs.

For *all* the facts get CATALOG 50

It gives full data on thousands of time, money and labor-saving Chromalox Units.

ID-14

Industrial Div., EDWIN L. WIEGAND CO., 7509 Thomas Blvd., Pittsburgh 8, Pa.

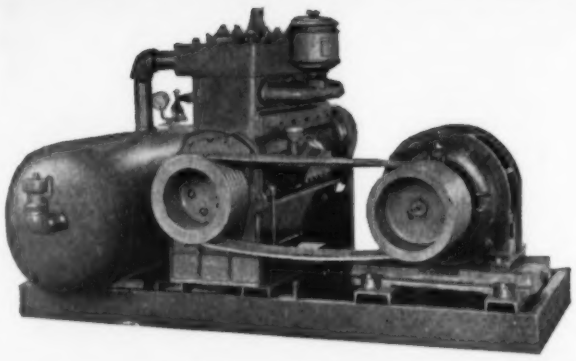
See other advertisement on page 4

CHROMALOX

ELECTRIC HEAT FOR MODERN INDUSTRY

▲ For more details circle NED-6392 on enclosed inquiry slip ▲

SCHRAMM Unistage AIR COMPRESSOR



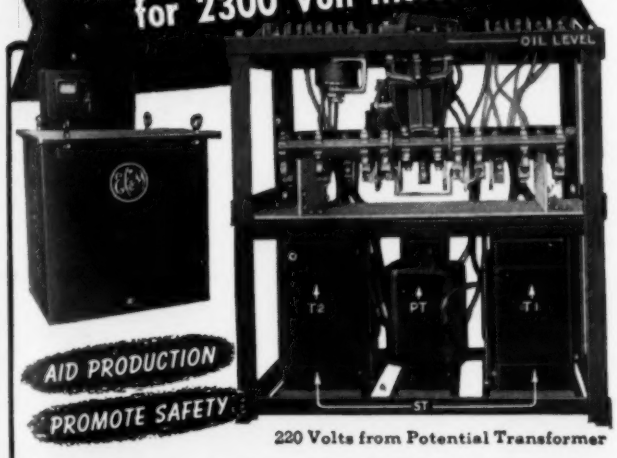
ON BASE WITH MOTOR AND HORIZONTAL RECEIVER

SCHRAMM "V" Belt Drive On Base compressors are built for 24-hour continuous service with the least up-keep and operating cost. Built in sizes ranging from 1/3 to 100 h.p. Write for Catalog 5110.

SCHRAMM INC. THE COMPRESSOR PEOPLE WEST CHESTER PENNSYLVANIA

▲ For more details circle NED-6393 on enclosed inquiry slip ▲

EC&M Reduced Voltage Starters for 2300 Volt Motors



AID PRODUCTION

PROMOTE SAFETY

220 Volts from Potential Transformer

Compensator mechanism (double-throw contactor and transformer assembly) is oil-immersed—always lubricated—protected from corrosion—eliminates the need for frequent inspection. Acceleration by continuous torque—motor circuit is *not* opened at transition from start to run. Potential transformer supplies 220 volts for push button circuit—a feature of convenience and safety.

Ask for Bulletin 1047 and No. 19 ACCELERATOR

THE ELECTRIC CONTROLLER & MFG. CO.
2698 EAST 79TH STREET • CLEVELAND 4, OHIO

▲ For more details circle NED-6394 on enclosed inquiry slip ▲

ROOM AIR CONDITIONER
improved window type units are available in 1/2 and 3/4-hp models

All-weather exhaust, modern cabinet, easily changed filters and hermetically sealed refrigeration system are features of improved 1952 window type room air conditioners. Rooms with 200 to 300 sq ft of area are served by 1/2-hp model, while 3/4-hp unit is designed for rooms with 300 to 450 sq ft of floor space. Hammerloid finished cabinet is neutral tone to blend with any room decoration.

Operating at low noise level, conditioner has manual control for regulation of exhaust damper to remove air from room to outside. It functions independently of cooling section so that it can be used in cold weather to exhaust stale or smoky room air. Adjustable louvers provide four-way directional control of air circulation to eliminate drafts. Made by **United States Air Conditioning Corp.**, 3316 Como Ave. S. E., Minneapolis 14, Minn.

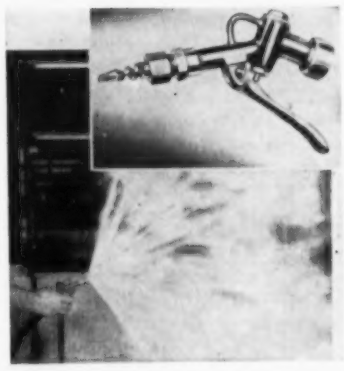
▲ For more details circle NED-6395 on enclosed inquiry slip ▲

SPOTLIGHTS
make use of plastic reflectors

Molded plastic reflectors, finished with vaporized aluminum, provide two Eveready spotlights with bright, uniformly round and evenly diffused projected light spots. Thermosetting Bakelite reflectors resist abuse and maintain accuracy of contour. Aluminum coating on spotlight reflectors is deposited under vacuum and high temperature. Reflector made by **Auburn Button Works, Inc.**, 250 McMaster St., Auburn, N. Y.

▲ For more details circle NED-6396 on enclosed inquiry slip ▲

FOG GUN FOR GARDEN HOSE
aids extinguishing small fires



Ordinary garden hose can be converted into mobile and effective inside fire fighting tool with this fog gun. Trigger nozzle design also permits gun to be used for laying dust, cooling molds and spraying lubricants. Tap pressure of 30 to 120 psi will produce effective fog that will instantly blanket and extinguish small fires. Nozzle has instantaneous trigger action and positive shut-off that aid in easy manipulation. Made by **Bete Fog Nozzle, Inc.**, 85 Pierce St., Greenfield, Mass.

▲ For more details circle NED-6397 on enclosed inquiry slip ▲

... the new separable FLEXCO HINGED BELT FASTENERS

U. S. Patent No. 2,477,855

- For joining grader, trencher, ditcher and other earth moving conveyor belts.
- For belts 3/8" to 1/2" thick.
- A FLEXCO fastener that is HINGED. Has removable hinge pin.
- Troughs naturally, operates through take-up pulleys.
- Strong, durable . . . pull or tension is distributed uniformly across joint.

Order From Your Supply House. Ask for Bulletin HF 500.

FLEXIBLE STEEL LACING CO
4664 Lexington St., Chicago 44, Ill.

▲ For more details circle NED-6398 on enclosed inquiry slip ▲

▲ For more details circle NED-6399 on enclosed inquiry slip ▲

B.F.Goodrich

helps you get better operating results —better tire service

HERE'S a man who gets results for you. He's your BFG representative who helps you get longer, more efficient industrial tire service. He's trained in tire maintenance—will give you a program on tire care that helps increase production — eliminate lost time.

Let TW TIRE AND WHEEL ANALYSIS lengthen tire life

This local B. F. Goodrich man is a tire specialist. He's been given training so that he can analyze your operation . . . study loads, hauls, equipment, floors and hauling surfaces and then make specific tire and wheel recommendations to you. He'll also give you suggestions on tire care and maintenance that you'll find particularly helpful. His tire selection recommendations are impartial because BFG has the only *complete* line of industrial tires. His only interest is in assuring the best possible tire service for you.

A similar program is also available for manufacturers of industrial hauling equipment.

For full details of the TW Analysis plan, mail the coupon below. There's no obligation whatsoever.

The B. F. Goodrich Co.
Department TW-122
Akron, Ohio

Please give me additional information on your new Tire and Wheel Analysis plan.

Name_____
Title_____
Company_____
City_____ State_____

RESEARCH KEEPS B.F.Goodrich FIRST IN RUBBER

▲ For more details circle NED-6400 on enclosed inquiry slip ▲

AUTOMATIC DISPATCH SYSTEMS

RUN
Between
Points
Without
Operators

SPEED
Production

SAVE
Time
Money
Floors
Elevators

Press a button and up goes a load. When it reaches top position, the overhead carrier starts on its way to next room or building other side of street. Back and forth it travels automatically, carrying materials without operator accompanying. Many types of automatic Tramrail systems are cutting costs drastically and smoothening production flow.

Write for this free booklet.

AUTOMATIC DISPATCH SYSTEMS

CLEVELAND TRAMRAIL DIVISION
THE CLEVELAND CRANE & ENGINEERING CO.
6640 East 285th St., Wickliffe, O.

CLEVELAND TRAMRAIL

▲ For more details circle NED-6403 on enclosed inquiry slip ▲

SERVICING TOWER
truck-mounted unit reaches to 51 ft and folds to 11-ft height

Designed to service aircraft of B-36 size, but adaptable to maintenance work on buildings, signs, bridges and power lines, Sky Hook model 51 is extensible tower. Truck-mounted and hydraulically operated, tower requires but one operator and no 'ground man.' Controls for moving up, down and laterally are on boom-point platform rail. Hydraulically actuated out-riggers provide safe base on ground. Tower has top working range of 51 ft 6 in. and moves in 280-degree arc around turntable base. Jointed boom folds over truck cab to traveling height of 11 ft on International L-152 truck. Width is 6 ft 8 in. Mounting can be on any standard truck chassis with 170-in. wheelbase similar to International L-152. Special units with longer or shorter booms can be made using same basic design. Made by **Mobile Towers, Inc.,** Dept. D, Ft. Wayne, Ind.

▲ For more details circle NED-6405 on enclosed inquiry slip ▲

FIVE-INCH OSCILLOSCOPE
aids microwave installations

Although designed especially for microwave installations, this model ST-2C 5-in. oscilloscope can be used also for general laboratory work. Vertical sensitivity alternating current input is 0.075-v rms per in., and vertical amplifier frequency response, prove and alternating current, is 20 cps to 3 megacycles plus 0 or minus 30 per cent. Cathode ray tube is cradled in rubber and has ¼-in. thick green-colored safety window. Entire vertical amplifier, sweep and low level horizontal stages are supplied with direct current operating potentials from electronically regulated power supply. To aid in amplitude measurements of voltages, voltage calibrator is included that can be varied in seven steps from 0.3 to 300 peak-to-peak volts. Made by **General Electric Co.,** Electronics Park, Syracuse, N. Y.

▲ For more details circle NED-6406 on enclosed inquiry slip ▲

DO YOU KNOW? Quick calculations in vacuum research and processing work involving pump capacities, specific volumes and vacuums, and time are performed readily with slid-rule type "Vacuum Calculator." Vapor pressures of water at various temperatures and capacities of round tanks can be determined also. Included on rule are temperature conversion tables and chart of boiling points of solvents under pressure. Issued free by F. J. Stokes Machine Co., 5900 Tabor Rd., Philadelphia 20, Pa.

▲ For more details circle NED-6407 on enclosed inquiry slip ▲

LEADS BY 6 to 1

CARBOLOY "LIVE-SPIRAL" Masonry Drill

In answer to this question from a recent national survey . . . "What brand do you sell?" . . . Carboloy "Live-Spiral" Drills got more votes than the next six brands combined . . . leading by over 6 to 1! And "Live-Spiral" Drills lead because they *outperform* the rest. Just look what users say:

PLUMBING CONTRACTOR:
"These drills are A-1."

HEATING CONTRACTOR:
"Excellent performance."

INDUSTRIAL USER:
". . . exactly what we wanted . . . delighted to get them."

Carboloy "Live-Spiral" Drills available in sizes ¼" to 1", packaged individually or in handy kits. Fit any rotary electric drill.

Famous "Live-Spiral" Drills *automatically clean* holes as they drill. No packing! Tipped with Carboloy Cemented Carbide, *the hardest metal made by man.* Longer wear! What a combination! See your dealer or write direct.

"Carboloy" and "Live-Spiral" are trademarks of Carboloy Department of General Electric Company.

CARBOLOY
DEPARTMENT OF GENERAL ELECTRIC COMPANY
11189 E. 8 Mile Street • Detroit 32, Michigan

▲ For more details circle NED-6400 on enclosed inquiry slip ▲

CUT SPRAY PAINTING COT on many defense items

such as the shells illustrated, by sharply increasing production through the use of

ELECTRO-FORMED METAL MASKS
(MADE BY PATENTED PROCESS)
designed to fit into your conveyorized equipment.

We also design, engineer and build

COMPLETE AUTOMATIC SPRAY EQUIPMENT
(WITH OR WITHOUT MASKS)

MASK WASHING EQUIPMENT *and* AIR-OPERATED CLAMPS, FIXTURES AND TOOLS for

positioning parts in masks while painting or holding parts in place for other operations, such as welding.

Plug-type masks for keeping depressed areas clear, while spraying background; lip-type masks for protecting the background while painting depressed areas; and block cutout plane surface type masks.

Clean, sharply defined letters and decorative effects are obtained on intricate die castings, stampings and plastic forms by accurate control of painted areas with no fogged edges. Afterwiping or buffing off of overspray is unnecessary. The "loose" inside of letters and numerals, such as "0" and "6", is held in position by arched bridging to eliminate objectionable "ties."

SEND COUPON NOW!

CONFORMING MATRIX CORPORATION
338 Toledo Factories Building Toledo 2, Ohio

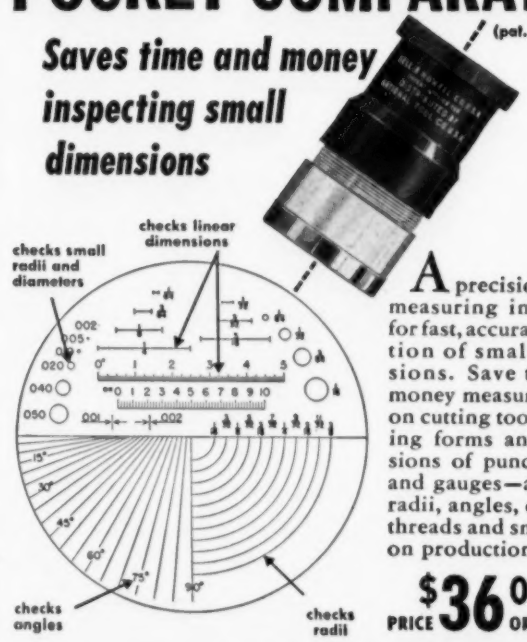
Please send, without obligation, details on ( ) Hand masks; ( ) Mechanical masking fixtures; ( ) Air-operated masking fixtures; ( ) Stationary automatic spray painting masking machines; ( ) Rotary table automatic spray painting masking machines; ( ) Quotation on masks for parts (or prints) which I am forwarding.

NAME _____
FIRM _____
STREET _____
CITY & STATE _____

▲ For more details circle NED-6404 on enclosed inquiry slip ▲

new POCKET COMPARATOR (pat. applied for)

Saves time and money inspecting small dimensions



A precision optical measuring instrument for fast, accurate inspection of small dimensions. Save time and money measuring wear on cutting tools, checking forms and dimensions of punches, dies and gauges—as well as radii, angles, chamfers, threads and small holes on production parts.

PRICE $36.00 ORDER TODAY

a product of BELL & HOWELL CO. *distributed by*

Write for FREE descriptive folder

See Your National Tool Co. Representative or Local Jobber
NATIONAL TOOL CO.
11210 Madison Avenue Cleveland 2, Ohio

▲ For more details circle NED-6408 on enclosed inquiry slip ▲

HOW TO MAKE 1 SINGLE CIRCUIT DO THE WORK OF 2

CHARG-O-MATIC Motor Generator Battery Charger

DOUBLE THE CAPACITY of your Charg-O-Matic "KX" or "HX" single-circuit battery charger—at a fraction of the cost of an additional charger! Hertner's new Double Duty Charge Control Unit, mounted on your Charg-O-Matic, makes this easy.

You plug in two truck batteries **at once.** Each is individually charged. When the first is recharged, it is automatically disconnected and the same cycle is repeated for the second. When both are fully charged, motor generator automatically shuts down, with no further attention. Begin recharging at end of a day. By tomorrow morning you'll have two battery-powered trucks back in operation.

Specify a Double Duty unit when ordering your new "HX" or "KX" Charg-O-Matic, or mount a Double-Duty Unit on your present "HX" or "KX" Charg-O-Matic (if manufactured after Dec. 1, 1949). Either way, you'll double the usefulness of your battery-charging equipment.

For additional information on the "HX" or "KX" Charg-O-Matic with Double Duty Unit call in your nearest electric truck representative, or write direct for bulletin No. 201R.

THE HERTNER ELECTRIC COMPANY
12690 ELMWOOD AVE. • CLEVELAND 11, OHIO
A General Precision Equipment Corporation Subsidiary
MOTORS • MOTOR-GENERATORS • GENERATOR SETS
Representatives in Principal Cities

▲ For more details circle NED-6410 on enclosed inquiry slip ▲

MERRILL MATERIALS HANDLING DEVICES

MERRILL BROTHERS
56-13 ARNOLD AVE., MASPETH, N. Y.

▲ For more details circle NED-6411 on enclosed inquiry slip ▲

PREVENT Contraction-Expansion TROUBLE WITH PIPING

This folder shows how you can

✔ cut expansion joint costs

✔ enjoy virtually maintenance-free service

✔ select the joint to meet your particular problem

If you are designing to take care of contraction-expansion problems, this folder can help you. It describes fully the type Dresser Expansion Joint to use under any given condition. Photographs and sectional drawings of each type are shown with complete instructions for ordering and installing. Specification tables are included. Add this valuable folder to your files by writing to Dresser for your free copy today.

DRESSER EXPANSION JOINTS
DRESSER MANUFACTURING DIV.
23 Fisher Ave., Bradford, Pa. (One of the Dresser Industries)
▲ For more details circle NED-6412 on enclosed inquiry slip ▲

new BLACKMER HAND PUMPS

- NEWEST DESIGN IMPROVEMENTS
- GREATER CAPACITIES
- WIDER RANGE OF APPLICATION for LOW OR HIGH VISCOSITY LIQUIDS OF ALL TYPES

New Blackmer Hand Pumps provide easier, faster dispensing from drums or wheel tanks, and for liquid materials handling up to 28 gallons per minute.

FOR COMPLETE DETAILS

Folder illustrates models for dispensing, refueling, underground tank service, etc., with accessories for choice of mounting. Write for folder "HP6."

BLACKMER PUMP COMPANY
1809 CENTURY AVE., S.W., GRAND RAPIDS, MICH.
▲ For more details circle NED-6413 on enclosed inquiry slip ▲

Fast, Uniform Drying Can be Simple as This

INSIDE VIEW of dielectric drying oven shows simplicity of dielectric drying. Simply place units to be dried on moving conveyor. Units pass between electrodes and in a matter of minutes come out completely dried — never burned.

Dryers like this save time, fuel, space, and often provide better quality because drying is always uniform.

Get engineering and cost studies from your nearby Allis-Chalmers Sales Office, or write Allis-Chalmers, Milwaukee 1, Wisconsin. A-3357

ALLIS-CHALMERS
▲ For more details circle NED-6414 on enclosed inquiry slip ▲

CRANE CAB CONDITIONER requires no ductwork when installed

Recommended for air conditioning cabs of cranes operating in high temperatures or in atmospheres contaminated by toxic and noxious gases or dusts, split-type crane cab cooler does not require ductwork for installation because cooling section is installed in cab itself. Condenser section is placed outside on crane in any convenient location and only connections between it and cooling section are refrigerant piping and power lines. Thermostatically controlled, cooler will maintain temperature of 80 to 85° F when outside ambient is 175° F; during heating season, unit keeps temperature in cab at 68 to 75° F with an ambient of 0° F outside. Typical installations include cranes working over or around soaking pits, open hearth furnaces and bessemer converter. Made by **Dravo Corp.**, Air Conditioning Dept., Dept. NED, Fifth & Liberty Aves., Pittsburgh 22, Pa.

▲ For more details circle NED-6415 on enclosed inquiry slip ▲

MILLING MACHINE mills jet engine compressor blades

Completely automatic except for loading, pressing start button and unloading work at end of cycle, style 86 precision profile miller mills airfoil form on jet engine compressor blades. Parts are located from finished root form at one end and from center in other end. Machine uses master cams made from engineer's glass layouts. Coolant equipment also has automatic controls. Work is supported rigidly by back rests throughout cutting stroke. Headstock, tailstock and back rests are clamped hydraulically when start button is pressed and unclamped when work is indexed. Work moves lengthwise across cutter at adjustable rate of feed. Amount of movement during indexing and total number of indexes are determined by positioning of pins in index plate. Made by **Ex-Cell-O Corp.**, 1216 Oakman Blvd., Detroit 32, Mich.

▲ For more details circle NED-6416 on enclosed inquiry slip ▲

DO YOU KNOW? "Measure Time Accurately" is title of 20-page illustrated manual which shows how time and motion studies can be performed with aid of 16-mm motion picture cameras and projectors. Using telephoto lens, close-up pictures can be made from remote point of any operation in factory, shop, warehouse or office without distracting operator. Film can be projected and analysis made of operation at slow or normal speed. Issued by Bell & Howell Co., 7174 McCormick Rd., Chicago 45, Ill.

▲ For more details circle NED-6417 on enclosed inquiry slip ▲

SAFETY EQUIPMENT FOR ALL INDUSTRIES

IPCO DRUM & BARREL RACK

For All Standard 55 Gallon-Drums and Barrels

Easy, efficient handling. Practical for general use. Allows complete drainage; prevents personal injuries . . . Rigidly constructed of angle iron; two wheels and two swivel casters as illustrated.

WRITE FOR BULLETIN LA-81

IPCO Safety Equipment for all Industries
INDUSTRIAL PRODUCTS COMPANY
2807 N. FOURTH STREET · PHILADELPHIA 33, PA.
▲ For more details circle NED-6418 on enclosed inquiry slip ▲

New packing technique for shippers!

Note, in the above photo, the wide gap between top and bottom sections of the Ives Company telescopic-type shipping carton. One 2" strip of *Polyken* Industrial Tape No. 261 takes care of this; forms a strong, waterproof seal that stands up under the roughest handling during shipment. No. 261 meets government specifications, has a tensile strength of 50 lbs. per 1" width. Sticks firmly to any type of shipping carton.

Ask your *Polyken* distributor or write for free folder, "Tape is a Tool." Address *Polyken*, Dept. NEH, 222 W. Adams Street, Chicago 6.

ONE OF THE NEW . . . Polyken® INDUSTRIAL TAPES
TAILORED TO YOUR JOB
POLYKEN Industrial Tape, Department of Bauer & Black, Division of The Kendall Company
▲ For more details circle NED-6419 on enclosed inquiry slip ▲

Eureka Williams Corporation engineers had a tough design problem: the elimination of excessive wear on a vacuum cleaner drive belt turning a brush roll at 3500 rpm.

Instead of costly and time-consuming "cut-and-try" experimentation, they slowed the motion over 200 times with the Kodak High Speed Camera. When the 16mm film was projected at normal speed, the answer was readily apparent —a belt material of different characteristics. In addition, the pictures showed how a change in brush design would greatly increase sweeping efficiency.

Here is but one example of how the Kodak High Speed Camera, taking up to 3200 pictures a second, solved a difficult design problem. The booklet, "Magnifying Time," will show how high speed photography can help solve your problems of design, production, and product performance. For your copy, write to Eastman Kodak Company, Industrial Photographic Division, Rochester 4, N. Y.

the Kodak HIGH SPEED Camera

Kodak

▲ For more details circle NED-6420 on enclosed inquiry slip ▲

ANOTHER BANCROFT-HICKEY ORIGINAL . . . recently created for a leading producer of industrial bearings, may be your answer too — if your production is crippled by wheels that won't hold their form.

This superior wheel of organic bond is engineered for long service — yet breaks away before excessive glazing or loading. It *holds* its form, thus minimizing the redressing that inflates diamond costs and robs operator efficiency.

Whatever your grinding operation, use the wheel correct in grade and grain for the job. Use a Bancroft-Hickey original and get performance as individual as a thumb-print.

BANCROFT-Hickey MANUFACTURING COMPANY BRISTOL, PA.

▲ For more details circle NED-6421 on enclosed inquiry slip ▲

ASBESTOS CANNOT CARBONIZE!

No motor is more durable than its windings. In U. S. Uniclosed Motors all windings are *asbestos-protected.* Motor life is tremendously increased because asbestos cannot carbonize and withstands highest temperatures.

UNICLOSED

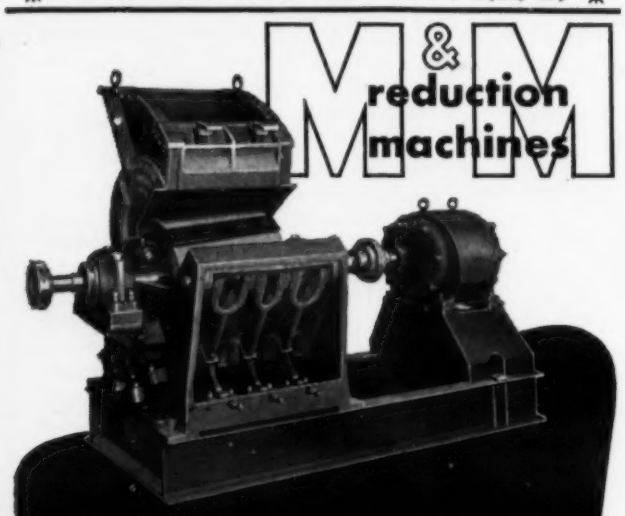
Attractiveness of armored Uniclosed design adds eye appeal. ¼ to 250 h.p. Write for interesting descriptive Bulletin featuring Uniclosed Motors.

U.S. ELECTRICAL MOTORS Inc.
Box 2058, Los Angeles 54, Cal. or Milford, Conn.

US MOTORS

▲ For more details circle NED-6422 on enclosed inquiry slip ▲

M & M reduction machines

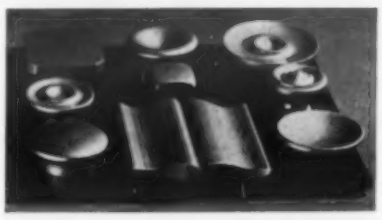


M & M Reduction Machines are rapidly gaining favor in industry for converting waste to uniform size for easy handling and in many cases into valuable by-products. Cut your disposal costs with an M & M Reduction Machine. Send us your problems.

MITTS & MERRILL
1000 South Water • SAGINAW, MICHIGAN

▲ For more details circle NED-6423 on enclosed inquiry slip ▲

METAL FINISHED WOOD KNOBS
retain luster, metallic appearance

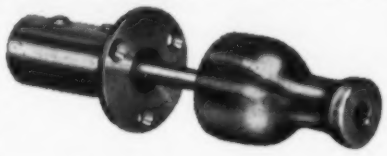


Conservation of critical metals is realized from use of Warmet simulated metal finish for wood products which retains luster and metallic appearance even after severe use. Company is producing furniture knobs and pulls with this finish and is prepared to reproduce almost any shape or style according to manufacturers' design. Made by **Warsaw Products, Inc.,** 88 S. Main St., Warsaw, N. Y.

▲ For more details circle NED-6424 on enclosed inquiry slip ▲

TANDEM CONNECTOR
large contact area within socket

Single large silver plated brass contact in plug of CS tandem type connector has diameter of ¼-in., insuring large contact area within socket. Receptacle has two socket contacts in tandem which are insulated from each other. Connector can be used with electric analog computors and on alternating current network analyzers. It has low resistance and capacitance qualities and is designed to set up quickly various analyzer circuits. Shells are made of aluminum alloy with phenolic insulators. Connectors accommodate No. 12 wire, have a minimum flashover of 2300 v and carry maximum of 35 amp. Made by **Cannon Electric Co.,** Dept. 49, 3209 Humboldt St., Los Angeles 31, Calif.



▲ For more details circle NED-6425 on enclosed inquiry slip ▲

GENERAL PURPOSE CAPACITORS
of metallized paper tubular type

Compactness and light weight are combined with high insulation resistance, low power factor and self-healing characteristics in line of metallized paper tubular capacitors for general-purpose use. Pup type, illustrated, has metal end caps and is enclosed in wax impregnated paper tube. It can be used over temperature range from —40 to 60° C without derating and is available in nine capacities from 0.01 to 2.0 mfd at 200, 400 and 600 v dc. Sealpup type has 11-capacity range from 0.01 to 2.0 mfd at 200, 400, and 600 v dc and is designed for Army, Navy and Air Corps equipment. Metapup is hermetically sealed and available in 12 capacities from 0.01 to 6.0 mfd at voltages up to 600 v dc. Latter two types can be used from —55 to 95° C. Made by **Cornell-Dubilier Electric Corp.,** 1047 Hamilton Blvd., South Plainfield, N. J.

▲ For more details circle NED-6426 on enclosed inquiry slip ▲

Stanzoils

Hot 'n Cold Neoprene Coated Gloves

Work Comfort in Temperature Extremes from −85° to +314°F.

This Stanzoil Hot 'n Cold Glove is designed expressly for use in industry where liquid-tight hand protection in extremely high and extremely low temperatures is required. Several insulating layers of fleecy material are coated with bright red DuPont milled neoprene that resists damage from oils, acids and caustics.

Tests on this glove show that work is possible in liquids at temperatures of 85° below zero and 314° above zero, Fahrenheit scale. Laboratory workers hands were comfortable after a half hour's immersion in a liquid whose temperature was 12°F

For more information, complete catalog and prices write us. Refer to Stanzoil No. R-28. *The Pioneer Rubber Company, 634 Tiffin Road, Willard, Ohio, Los Angeles 4, California.*

STANZOIL PIONEER

OVER 30 Years OF QUALITY GLOVE MAKING

▲ For more details circle NED-6427 on enclosed inquiry slip ▲

Precision Equipment for Your Defense Jobs . . .

During the last war thousands of EXACT WEIGHT Scales were used by industry in general for precision weighing in hundreds of metal working operations. These operations, to mention but a few, covered selection of mass produced parts, counting of parts, balancing and final inspection. Other large operations were shell loading and checkweighing of small and medium projectiles. If you have like operations now or for immediate future do this now. Advise us promptly what your operation is and give as full details as possible. Many of these operations call for (1) special engineering on our part (2) getting and assembling scarce materials, both of which can seriously delay this vital equipment when you will need it most.

EXACT WEIGHT SCALES
Industrial Precision

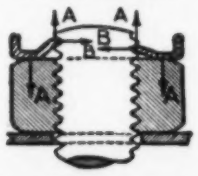
THE EXACT WEIGHT SCALE COMPANY
930 W. Fifth Avenue, Columbus 8, Ohio
2920 Bloor St., W., Toronto 18, Canada

▲ For more details circle NED-6428 on enclosed inquiry slip ▲

ABSOLUTE SECURITY for BOLTED ASSEMBLIES

—regardless of VIBRATION or LOAD

Ordinary nut carries the load — PALNUT keeps it tight with DOUBLE-LOCKING SPRING ACTION



Powerful spring tension (A-A) is exerted upward on the bolt threads and downward on the ordinary nut, while slottedjaws(B-B) close in and grip the bolt like a chuck. Nut can not loosen—bolt can not back out.

Low cost—small space —fast assembly with hand or power drivers —may be removed and re-used

Write for samples and literature

THE PALNUT COMPANY
45 Cordier St., Irvington 11, N. J.

PALNUT Trademark LOCK NUTS

▲ For more details circle NED-6429 on enclosed inquiry slip ▲

SOLVED: an unusual FEEDING PROBLEM— with GAST rotary AIR PUMPS

This machine by Basca Manufacturing Company, Inc., puts Econ-O-Seal aluminum caps on milk bottles in dairies.

PROBLEM: Place cap on milk bottle at the right instant — when, and *only* when, bottle is ready.

SOLUTION: Suction from Gast Rotary Air Pump picks up cap. Pressure sends it along, also returns sucker for next cap.

RESULT: Dependable operation, moderate cost for pump, long-term satisfaction.

And that's but one example. We can show you scores of other problems — solved with equal success — by putting Gast Rotaries to work. Or better still, submit *your* problem to Gast for analysis.

Our engineers offer concentrated experience on the uses of low pressure, low vacuum, and compressed air for rotary power. And Gast Units offer unique advantages to manufacturers who "Specify Gast." Write for details—"Air may be your Answer!"

See our CATALOG in SWEET'S FILE

Gast Application Ideas Booklet—showing 26 design problems solved — sent upon request.

Original Equipment Manufacturers for Over 25 Years

GAST ROTARY AIR MOTORS · COMPRESSORS · VACUUM PUMPS (TO THREE H.P.) (TO 30 LBS.) (TO 28 INCHES)
GAST MANUFACTURING CORP., 115 Hickley St., Benton Harbor, Mich.

▲ For more details circle NED-6430 on enclosed inquiry slip ▲

Two Masoneilan Controllers

That Provide Precise Control at Moderate Cost

IN A MAJORITY OF PRESSURE APPLICATIONS
IN MANY TEMPERATURE APPLICATIONS

No. 2700
Pressure Controller

No. 3700
Temperature Controller

NOTE THESE MASON-NEILAN FEATURES

1. Same basic control mechanisms for pressure and temperature instruments insure simplicity, permit standardization of parts.
2. Pneumatic feedback — usually found only in more expensive proportional controllers . . . precise response.
3. Control point setting mechanism provides extreme accuracy of adjustment and easily read expanded index scale.
4. Proportional band adjustment between 3 and 50%.
5. Compact and sturdy case and internal mechanisms; all important internal parts of bronze, brass or 18-8 stainless steel.
6. Control action reversible with either bourdon or bellows.

Masoneilan models 2700 pressure and 3700 temperature controllers meet many industrial application requirements. They are moderate in cost . . . provide excellent performance, precise proportional response and ease of adjustment.

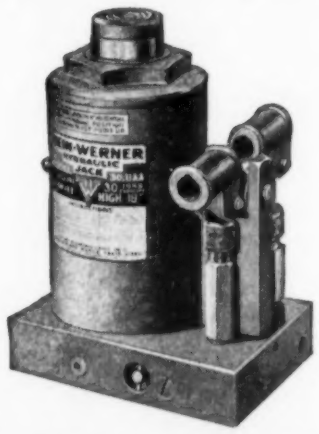
MASON-NEILAN (MASONEILAN) REGULATOR CO.

1189 ADAMS STREET, BOSTON 24, MASS., U.S.A.

For more details circle **NED-6431** on enclosed inquiry slip

Indispensable . . .

when converting part of plant to war production



HEIN-WERNER HYDRAULIC JACKS

. . . make lifting and pushing jobs easier

Hein-Werner HYDRAULIC JACKS

Made in models of 1½, 3, 5, 8, 12, 20, 30, 50 and 100 tons capacity. Hein-Werner also makes "Push and Pull" Hydraulic Jacks of 4, 10, 20 tons capacity. See your industrial supply distributor, or write us.

HEIN-WERNER CORPORATION • WAUKESHA • WIS.

For more details circle **NED-6432** on enclosed inquiry slip

GREENLEE HAND BENDERS . . . for making small-radius bends in pipe, tubing, conduit.

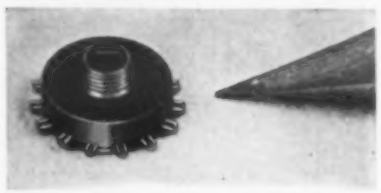
Quickly make smooth, accurate bends without flattening or kinking. Ideal for conduit installations or fitting pipe and tubing on machines . . . especially designed to form neat bends for sharp corners and nooks. Various models and sizes for steel, copper, brass and aluminum tubing or pipe, rigid or thin-wall conduit.

Free Folder and Booklet on the Greenlee Bender line. Write Greenlee Tool Co., 1948 Herbert Avenue, Rockford, Illinois.

TOOLS FOR CRAFTSMEN
GREENLEE

For more details circle **NED-6433** on enclosed inquiry slip

MINIATURE ROTARY SWITCH is 3/16-in. thick with ⅝-in. OD



Recommended for such airborne electronic equipment as communication receivers, telemetering instruments and guided missile controls, this Edco miniature rotary switch can be ganged in one, two or three-pole types to provide many combinations for complex circuits. Insulation between shaft and contact arms will withstand 2500-v ac, and plastic parts are compression molded of Plaskon Alkyd which has high resistance to arcs. Contacts are pure silver, and contact arm is silver plated beryllium copper heat treated for maximum strength. Made by **Electronic Development Corp.**, 6014 W. Washington Blvd., Culver City, Calif.

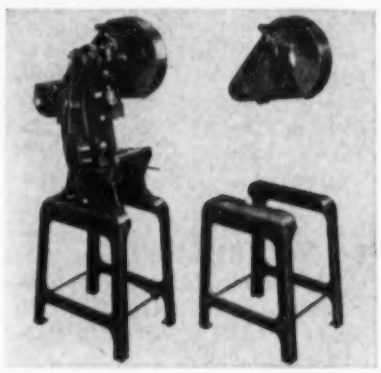
For more details circle **NED-6434** on enclosed inquiry slip

METAL CAN LABELS die cut to required shape

When Alloy Rods Corp. decided to package welding rods in lithographed metal cans, it made use of Print-Stix pressure-sensitive adhesive labels imprinted for each of five different rod compositions. Thus, standard can is used for all rods, but different labels assure proper identification of contents. Each die-cut oval-shaped label has protective paper backing covering adhesive. Operator bends label and strips split backing off as he applies it to can. Tape made by **Topflight Tape Co.**, Print-Stix Div., Dept. D-12, York, Pa.

For more details circle **NED-6435** on enclosed inquiry slip

PUNCH PRESS LEGS & GUARD for application to four presses



Extra operator safety is insured by series of belt guards in three sizes for Benchmaster 1-ton, 4-ton standard, 4-ton deep throat and 7½-ton punch presses. Belt guards are equipped with suitable mounting brackets for use on respective presses. Also available are cast iron legs for these presses. Wide spacing of feet insures stability. Legs are equipped with pedal which connects to clutch for foot control. Made by **Benchmaster Mfg. Co.**, Dept. NED-August, 2952 W. Pico Blvd., Los Angeles 6, Calif.

For more details circle **NED-6436** on enclosed inquiry slip

WIRE MESH

Maybe it all *does* look pretty much the same at first glance. But when a firm has been making wire mesh for 70 years man and boy, there's bound to be a little more to it than meets the eye — a little more know-how in engineering and weaving, a little more quality in the product, a little more service and satisfaction for the user.

JELLIFF WIRE MESH is woven in all ductile metals
JELLIFF WIRE MESH is woven in all commercial weaves
JELLIFF WIRE MESH is woven in widths up to 72 inches
JELLIFF WIRE MESH is economical. Every foot runs true to the specifications.

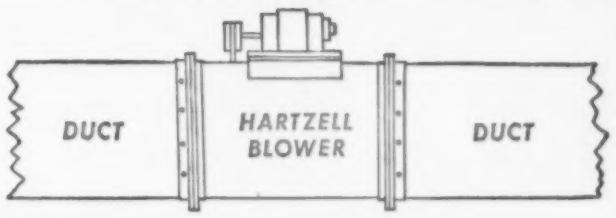
★ ★ ★ ★

JELLIFF WIRE MESH is a quality product and has been for 70 years. You can depend on it.

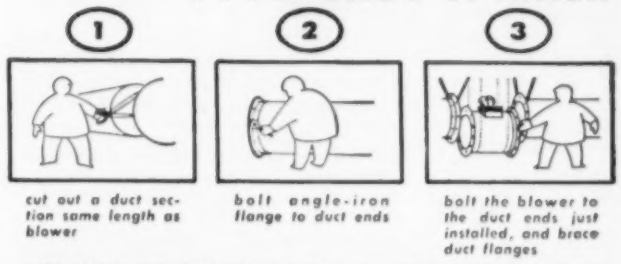
Write today for full details about JELLIFF WIRE MESH, JELLIFF WIRE MESH PRODUCTS, and JELLIFF'S CONSULTATION SERVICE on wire-mesh engineering. Address Department 11.

THE C. O. JELLIFF MFG. CORP.
DIPPING BASKETS
LEKTROMESH
RESISTANCE WIRE
WIRE MESH PARTS
WIRE CLOTH
STRAINERS • FILTERS
SOUTHPORT CONNECTICUT
WIRE PRODUCTS Jelliff SINCE 1860

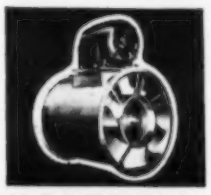
For more details circle **NED-6437** on enclosed inquiry slip



The Hartzell Vaneaxial Blower . . . is EASY to install



AND THAT'S ALL—just make electrical connections and you're done!



A POWERFUL BLOWER

A single 48" Hartzell Vaneaxial Blower can move 41,100 CFM against 7½" static pressure. That's real power! And with it you get maximum economy of space, installation cost and upkeep. Records prove it. Send for information.

HARTZELL PROPELLER FAN CO.
DEPT. G DIV. OF CASTLE HILLS CORP. **PIQUA, OHIO**
ENGINEERING REPRESENTATIVES IN PRINCIPAL CITIES

For more details circle **NED-6438** on enclosed inquiry slip

Get brighter plants, more reflected light on precision work, protect metal from heat and corrosion. Use the right aluminum paint. For maximum economy and good appearance, use Aluminum Metal and Masonry Paint for most interior jobs, Aluminum Enamel for heated surfaces, Aluminum House Paint for weather-exposed wood.

We do not make paint. To help you buy and apply the right aluminum paints we have prepared a detailed, illustrated book, "Painting with Aluminum," a complete guide to industrial painting.

Because rearmament needs come first, the supply of aluminum for paint is limited. Now it is more important than ever that you use the right aluminum paint for extra-long life and protection. Free book, "Painting with Aluminum," tells how. Write to ALUMINUM COMPANY OF AMERICA, 1788H Gulf Building, Pittsburgh 19, Pennsylvania.

Look for this shield on aluminum paints made by many paint manufacturers using ALCOA PIGMENTS.

ALCOA ALUMINUM ALBRON

For more details circle **NED-6439** on enclosed inquiry slip

from Attic fans to X-ray machines

timing devices for every purpose

MARK-TIME does the job

first where quality counts

In every industrial and appliance field Mark-Time timing devices are known for rugged, dependable operation with no sacrifice of accuracy.

Mark-Time timing devices are designed, engineered, and manufactured by a skilled team of engineers and craftsmen. They include spring operated bell timers, time switches, and combinations of both, designed to meet all specifications and requirements where audible bell signal or electrical circuit breaking is required at the end of a time cycle.

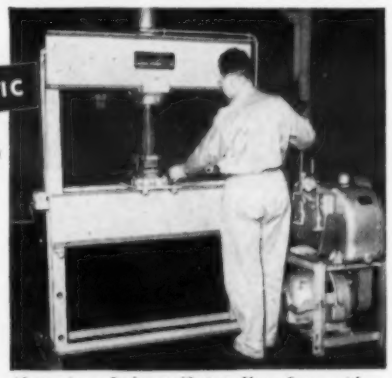
Let Mark-Time solve your timing problem!

MARK-TIME M. H. RHODES, INC.
HARTFORD, CONNECTICUT

In Canada send inquiries to: Ontario Hughes Owens Co. Ottawa, Ontario

For more details circle NED-6440 on enclosed inquiry slip

HERE'S Rodgers HYDRAULIC POWER to do 101 jobs faster, better, easier!



Above is a Rodgers 60 ton Shop Press with a Rodgers Power Pump. Other models have capacities of 80, 100, 150, 200, 300 and 400 tons.

You'll find a Rodgers Shop Press is the finest all-around time-and-labor-saving equipment you can have in your plant . . . for a multitude of pressing, forming, bending, straightening jobs . . . for die tryout . . . and even short production runs.

Their many exclusive features make Rodgers Shop Presses unusually versatile in performance . . . and there are several standard models and capacities to suit most every shop or plant requirement.

Other Rodgers Hydraulic Equipment is available too, for *your* special jobs.

SEND FOR CATALOGS Complete details of Rodgers Equipment are covered in available catalogs. Write for them.

Rodgers Hydraulic, Inc.
HYDRAULIC POWER EQUIPMENT
7425 WALKER ST., ST. LOUIS PARK, MINNEAPOLIS 16, MINN.

For more details circle NED-6441 on enclosed inquiry slip

Save Time, Trouble and Money
Seal Pipe Joints and Gaskets with Leakproof KEY Graphite Paste

Key Graphite Paste will hold a pipe joint leakproof against all petroleum based liquids. Key lubricates as it seals and positively will not freeze the joint.

Key Paste is listed by the Underwriters' Laboratories.

Your jobber will supply you or send for liberal sample and try Key at our expense.

KEY Company
2601 South 27th St., East St. Louis, Ill.

FREE SAMPLE

KEY COMPANY, 2601 South 27th Street, East St. Louis, Ill.
Gentlemen: Please forward free sample of Key Graphite Paste.
Company Name.....
Address.....
Individual.....
Position.....

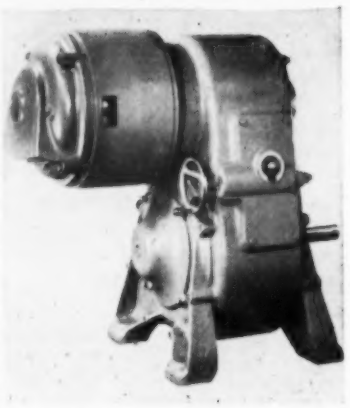
For more details circle NED-6442 on enclosed inquiry slip

INDUSTRIAL CLEANER operated by compressed air

Vibrating air valve incorporated in Vibro-Pneumatic industrial cleaner uses jet principle to create an agitating suction which forces dirt and metal particles into a container. This container is supported on back by belt and harness assembly. By operating a second finger-tip control valve, a vibrating external air jet is created for dislodging dirt from inaccessible places where it can be picked up by suction. Vibrating valve interrupts air supply 2000 times per minute, effecting air savings. Operation is from air lines of 80 psi or more. Nozzle widths of 5, 8 and 10 in. and wand lengths from 14 in. to 6 ft are available. Amount of suction and air consumption can be adjusted to suit conditions by using one of three orifices. Made by **VIBRO-Pneumatic Cleaner Co.,** Dept. NED, 518 Maccabees Bldg., Detroit 2, Mich.

For more details circle NED-6443 on enclosed inquiry slip

VARIABLE SPEED DRIVES controls speed under varying loads



Electric Speed-Trol Power Drives meet demand for 20 to 25 horsepower ratings in chemical, metalworking, food and plastic industries. Features include positive adjustment of pulleys, infinite speed variation and accurate speed control under changing loads. Motor housing and transmission case are gray iron castings for protection against corrosion from moisture-laden or chemical atmospheres. Drives are available in splashproof and totally enclosed fan-cooled models, and with built-in reduction gears for lower speeds. Models can be supplied with manual control, electric or mechanical remote control. Type shown is drip-proof model which prevents liquids or other materials from falling into motor. Made by **Sterling Electric Motors, Inc.,** Dept. NED, 5401 Anaheim-Telegraph Rd., Los Angeles 22, Calif.

For more details circle NED-6444 on enclosed inquiry slip

DO YOU KNOW? Cathodic etching for studying metals is accomplished in high vacuum unit which bombards metal sample with positive ions. Since this etching is physical rather than chemical, formation of oxides and other chemical artifacts is minimized. This etcher is adaptable for both pure research and production metallurgical sampling. Made by Distillation Products Industries, 763 Ridge Rd. W., Rochester 3, N. Y.

For more details circle NED-6445 on enclosed inquiry slip

BASA HAMMERS • FAVORITE WRENCHES • EMPIRE MALLETS
PALMETTO Packings
MORAN'S COUPLINGS • "TUSKO" WALRUS POLISHING LEATHER

PALMETTO® PACKING with a Twist TO CHOKE THE COST ON YOUR DOWNTIME

Reckon the "bargain" in makeshift packings in terms of constant maintenance, frequent repacking — and equipment failure . . . you'll understand why so many select Palmetto for "greater economy in the long run."

Each strand of Palmetto Twist, for example, is built for 600 F superheated steam — thus gives bonus service at all lower temperatures.

Each strand is lubricant-impregnated for friction-free, self-lubricating performance. Will not harden. Will not bind valve stems or pump shafts.

Each strand is of high grade, high tensile Canadian white asbestos — quality that counts for better service, longer life all the way.

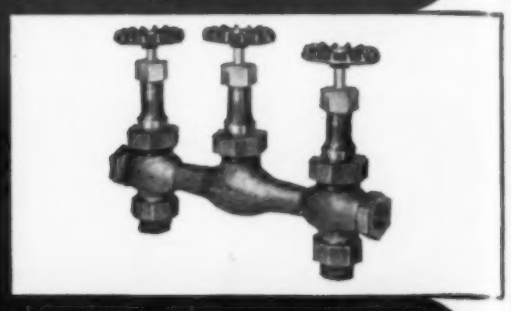
For all the facts on non-hardening, non-binding Palmetto Twist, write for new Bulletin LP-10.

GREENE, TWEED & CO.
NORTH WALES, PENNSYLVANIA

Contact your fully-stocked Palmetto distributor on all packing problems . . . ask him about our special tools.

For more details circle NED-6446 on enclosed inquiry slip

The Compactness of HONEYWELL BY-PASSES



will simplify your piping

The Honeywell By-Pass is a compact, neat, easily-installed means of by-passing control valves, traps and other pressure units. It simplifies piping arrangements by eliminating a multitude of joints, nipples and elbows . . . by using a minimum of space . . . by saving time . . . by minimizing maintenance.

Available in Bronze as follows: sizes ½ to 2 inches . . . Bronze or Stainless trim . . . union bonnet . . . screwed ends . . . 150-300 lbs. . . . from $21 to $116. Available in Cast Steel as follows: 1 to 2 inches . . . union bonnet for 1" and 1¼", bolted bonnet for 1½" and 2" . . . Stainless trim . . . screwed or flanged ends . . . 300-600 lbs. . . . from $228 to $426. Send in your order, today!

MINNEAPOLIS-HONEYWELL REGULATOR CO., *Industrial Division,* 1912 Windrim Ave., Philadelphia 44, Pa. Offices in more than 80 principal cities of the United States, Canada and throughout the world.

Honeywell VALVE PRODUCTS

For more details circle NED-6447 on enclosed inquiry slip

Handy work bench is a Bonus! with RIGID TRISTAND Pipe Vises

• It's right there when you need it—the handy workbench built into every Tristand. New tray keeps tools at your finger-tips—less stooping, easier work. Tray makes Tristand rigid—won't fold up in use. Legs have rubber feet to prevent travel. Lon-Grip tool-steel jaws won't slip, won't mar polished pipe and tubing. Yoke vise, 2½" capacity; chain vise, 4". Buy these new work-saver RIGID Tristands at your Supply House.

RIGID
Work-Saver Pipe Tools
THE RIDGE TOOL CO. • ELYRIA, OHIO

For more details circle NED-6448 on enclosed inquiry slip

Long Lasting Floor Protection WAXES

Fuller BRUSH CO.

Liquid waxes available in 1, 5, 30, and 55 gal. containers

A thin coating of Fuller Floor Wax protects *and* beautifies your floors. Cleaning problems are simplified, too, since the dirt is all on top of the wax film. This means *less cleaner, less elbow grease, less time* required.

Your Fuller industrial representative can recommend the type — liquid or paste — best suited for your requirements. Ask him, too, about Fuller Furniture Polish and Fuller Metal Polish to protect and improve the appearance of your furniture and equipment, or write . . .

SHIPPED FROM NINE DISTRIBUTION POINTS

INDUSTRIAL DIVISION
THE FULLER BRUSH CO.
3530 MAIN ST. • HARTFORD 2, CONN.
IN CANADA: Fuller Brush Co., Ltd., Hamilton, Ont.

For more details circle NED-6449 on enclosed inquiry slip

Michigan Machine Shop SAVES $700 ON BRONZE BAR STOCK *in just one year!*

DIRECT shipments of N-B-M "Tiger" Bronze reduce this customer's costs 35%

Thirty cents per pound . . . that's what a Michigan Machine Shop saved by ordering "Tiger" Bronze direct from National Bearing Division. And, *overnight shipment of their orders is assured by strategically located warehouses.*

These low prices are made possible by direct-to-you shipments . . . NOT by any sacrifice in quality, because the quality of N-B-M "Tiger" Bronze is high! It's the same alloy we use in Motor Support Bearings for leading diesel locomotive builders . . . *bearings that have to be right!*

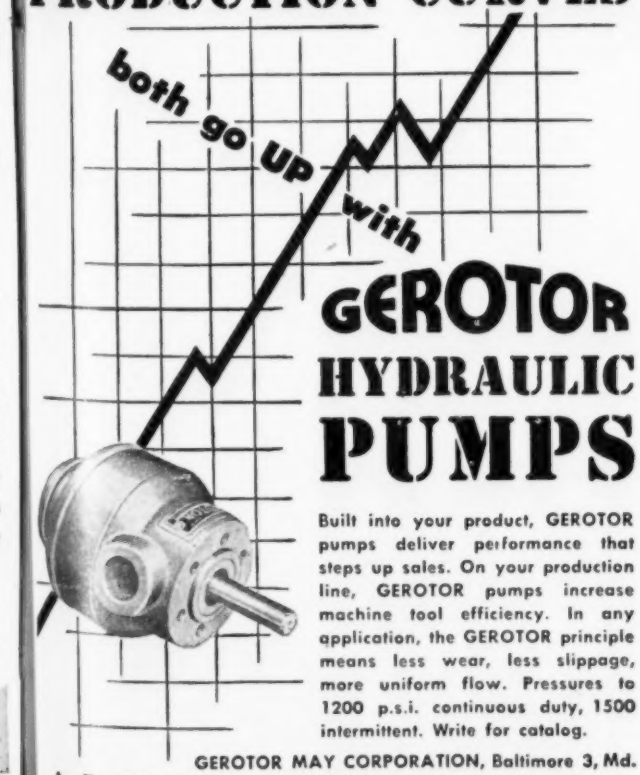
13" lengths of "Tiger" Bronze are available in all popular sizes and bar types . . . cored, solid, and hexagon. Order a trial supply of "Tiger" Bronze today . . . you'll get better bearing service and save money!

Quotations and free catalog on request.

AMERICAN Brake Shoe COMPANY — NATIONAL BEARING DIVISION
4930 Manchester Avenue • St. Louis 10, Mo.
PLANTS IN: ST. LOUIS, MO. • MEADVILLE, PA. • NILES, OHIO • PORTSMOUTH, VA. • ST. PAUL, MINN. • CHICAGO, ILL.

For more details circle NED-6450 on enclosed inquiry slip

SALES CURVES . . . PRODUCTION CURVES



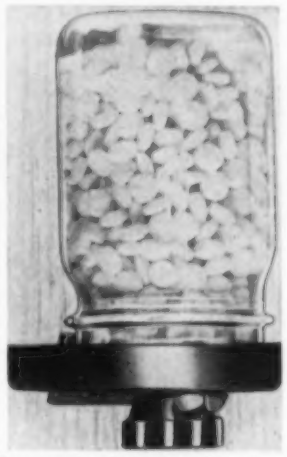
GEROTOR HYDRAULIC PUMPS

Built into your product, GEROTOR pumps deliver performance that steps up sales. On your production line, GEROTOR pumps increase machine tool efficiency. In any application, the GEROTOR principle means less wear, less slippage, more uniform flow. Pressures to 1200 p.s.i. continuous duty, 1500 intermittent. Write for catalog.

GEROTOR MAY CORPORATION, Baltimore 3, Md.

For more details circle NED-6451 on enclosed inquiry slip

SALT TABLET DISPENSER sanitary unit holds 750 tablets



Usable in factory, shop or office, this GS Ace salt tablet dispenser holds 750 ten-grain salt tablets. Of 95 per cent glass and plastic construction, unit is strong, foolproof and sanitary. Visibility invites consumption of tablets which replace body salt lost through excessive perspiration in summer months or in hot locations. Use also reduces frequency of heat fatigue. Dispenser costs $2.50. Made by **General Scientific Equipment Co.**, 2701 W. Huntingdon St., Philadelphia 32, Pa.

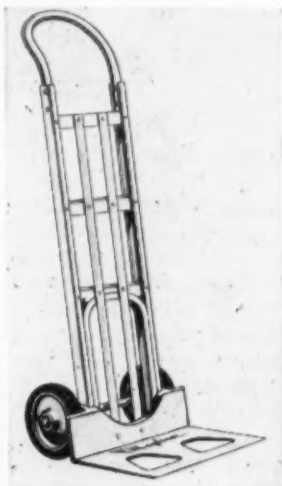
For more details circle NED-6452 on enclosed inquiry slip

TACHOMETER monitors speeds of many machines

Use of simple selector switch permits checking speed of any one of several machines which are connected to this series 42 tachometer indicator. Quick, accurate speed tests and comparisons can be made, even when indicator is 1000 ft or more from any of the machines. Speeds from 1/10 to 100,000 rpm can be measured by using various tachometer heads, and readings can be in any units such as revolutions per minute, inches per second, feet per minute or miles per hour. Connections between heads on machine and selector type indicator are made with standard electric wiring. Meter is mounted in sponge rubber and cannot be damaged by excess speed. Sealed dustproof case has universal mounting for semiflush or bracket installation. Made by **Metron Instrument Co.**, 436 Lincoln St., Denver 9, Colo.

For more details circle NED-6453 on enclosed inquiry slip

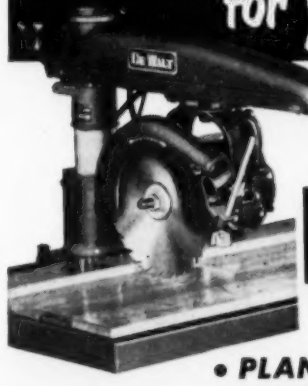
HAND TRUCK is lightweight



Weighing only 19 lb, this improved magnesium hand truck is easy to handle. Redesigned nose unit extends beyond wheels on either side to prevent loads from touching tires and interfering with freedom of movement. Addition of two strips along frame member adapts truck for handling either large or small packaged units. Rubber tire wheels roll easily on any surface. Made by **Magline, Inc.**, P. O. Box 346, Pinconning, Mich.

For more details circle NED-6454 on enclosed inquiry slip

the No. 1 money saver for your plant



DEWALT

gives you more work for your money in:

- *PLANT MAINTENANCE*
- *PATTERN SHOPS*
- *CRATING AND BOXING*

This versatile, all-purpose DeWalt is never idle! In *your* plant, it can take care of all your woodworking needs—quickly, accurately and safely. It is *many* machines in one! Simply by changing the cutting tool, you have another machine! Write for catalog. DeWalt, Inc., Dept. NE-8, Fountain Ave., Lancaster, Penna.

DEWALT — A subsidiary of American Machine and Foundry Co.

For more details circle NED-6455 on enclosed inquiry slip

This new three-phase Inductrol gives you more kva of regulation in a smaller floor space than ever before possible.

General Electric's NEW INDUCTROLS

(dry-type induction voltage regulators)

will help you get out more production

New improved Inductrols have been introduced this year for both single-phase and three-phase circuits, 600 volts and below. These new dry-type regulators automatically maintain correct voltage on your equipment and do not require expensive fireproof vaults. The attractively styled all-steel cabinets completely enclose all live parts for greater safety. Standard automatic regulators are available for circuits ranging from 3 kva, 120 volts up to 500 kva, 600 volts.

For advice on how, when, and where to apply Inductrols, get in touch with your G-E sales representative or authorized agent.

Write for Bulletins GEC-712 and GEA-4508. *General Electric Company, Schenectady 5, New York.*

GENERAL ELECTRIC

404-80

For more details circle NED-6456 on enclosed inquiry slip

MORE SOLD THAN ANY OTHERS

Write for Catalog OF USES AND SPECIFICATIONS

GENERAL Industrial Pneumatic Tires

..SAVE TIME·LABOR·MONEY

Protect equipment and floors · Reduce Breakage

- ★ *Wide Base Wheel*
- ★ *More Air Volume*
- ★ *More Stability*
- ★ *More Load Capacity*
- ★ *Longer Miles in Hi-Speed Service*

Available separately or in assemblies of Tires, Tubes and Wheels. Size O. D. 8" to 27"—200 to 4000 lbs. cap. for low and high speeds.

Rigid CASTER FORKS *Swivel*

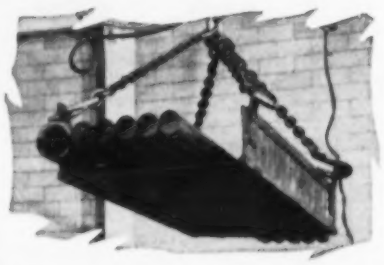
Wide-base caster forks engineered to carry heavier loads without adding dead weight to equipment. Available in identical pairs in a wide range of sizes.

Send for Catalog • Dept. 4

THE GENERAL TIRE & RUBBER CO. AKRON, OHIO

For more details circle NED-6457 on enclosed inquiry slip

POWELL
Job-Designed Handling Equipment
Cuts Handling 40-50%



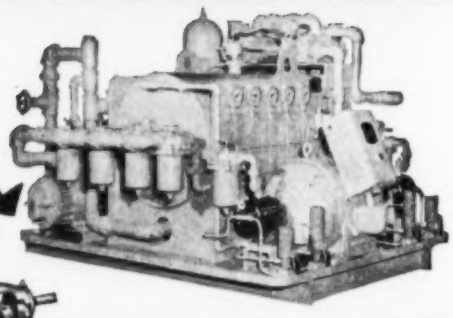
If you are working with odd lengths . . . bars, tubing, extruded or rolled products . . . your handling problem is right down the alley for Powell Job-Designed materials handling containers. Powell equipment at work in plants handling long stock has cut handling and inventory costs as much as 50 percent. Contact your nearest Powell representative or write direct.

Faster delivery of your materials handling equipment is assured if you can furnish either a government D. O. number or the steel.
Send inquiries to Dept. 581

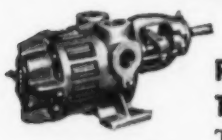
THE POWELL PRESSED STEEL CO. • HUBBARD, OHIO
ORIGINATORS OF COLD FORMED ALL STEEL HANDLING EQUIPMENT
(In Greater Youngstown)

For more details circle **NED-6458** on enclosed inquiry slip

ANOTHER EXAMPLE OF **ROPER** DEPENDABILITY IN HYDRAULIC APPLICATIONS



Series F Pump



ROPER PUMP QUICKLY CHARGES THE CIRCUIT IN THIS SECO UNIT

This Seco Fluid Power Package has all the essential components for automatic high-low hydraulic press operation. A fast-acting Roper Series "F" Pump is used as the low pressure generator; it supplies power to the circuit which closes the daylight opening of the press ram. Because the Roper Pump and a Seco pump operate intermittently, it is possible for the unit to operate two or more presses alternately.

Roper Series "F" Pumps operate with pressures to 300 P.S.I. — Capacities 1 to 300 G.P.M.

ROPER Rotary Pumps

Send for Free Booklet

GEO. D. ROPER CORPORATION
668 Blackhawk Park Ave., Rockford, Ill.

For more details circle **NED-6459** on enclosed inquiry slip

Got A MINUTE? Got A PENNY?

—then you can **CUT A KEYWAY**

— *any width from 1/16" to 1" in any bore* from 1/4" to 3"—in gears, cutters, pulley hubs, collars, couplings, etc., with du Mont "Minute Man" Keyway Broach Kits. Do the job in 60 seconds for as little as one cent per keyway. Costs you *dollars* to do it any other way.

CLIP THIS COUPON for the low down on this great little time and money saver

The du MONT CORPORATION, Greenfield, Mass.

Please mail descriptive folder and price list D on *Minute Man Keyway Broaches and Kits.*

Name.....

Company.....

Address.....

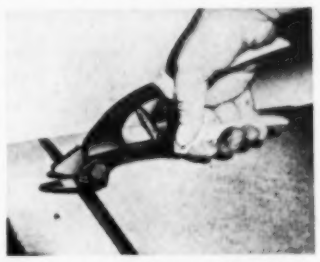
For more details circle **NED-6460** on enclosed inquiry slip

ADJUSTABLE THERMOSTAT is bimetallic type unit

Contacts open when selected temperature is reached in this model A-7 bimetal thermostat which can be calibrated from 70° to 600° F. Silver contacts are welded to stainless steel springs, and position of terminal lugs is optional in horizontal plane. Control can be mounted in any position with single screw. Made by **American General Thermostat Corp.**, 2058 Bronx St., New York 60, N. Y.

For more details circle **NED-6461** on enclosed inquiry slip

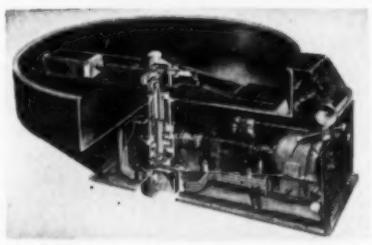
STEEL STRAPPING CUTTER hand tool speeds unpacking tasks



Capable of cutting up to 3/4 x 0.035-in. steel strapping, lightweight model E14AO strap cutter has flat lower blade for easy insertion beneath tensioned straps on bales, bundles and cartons. Band guide prevents straps from wedging sidewise between blades. Narrow span, curved handles fit grip of user. Made by **Acme Steel Co.**, Dept. 30P, 2840 Archer Ave., Chicago 8, Ill.

For more details circle **NED-6462** on enclosed inquiry slip

ACCELERATION TESTER simulates operating conditions to check aircraft and other parts



Calibration of acceleration indicating or reaction devices as well as testing of apparatus under predetermined conditions of acceleration are accomplished with this "G" Accelerator. It provides means for applying steady force of variable magnitude on such things as instruments and component parts of aircraft or guided missiles.

Device to be tested is mounted on rotating arm of machine and is properly counterbalanced. Variable speed drive permits selection of desired speed. Tachometer indicator and interval time-revolutions per minute measurement provide means for determining speed accurately. Electric and air connections to test object plus optical system which permits visual observation afford continual check of unit under test as though it were stationary.

Machine will handle 24-lb 8-in. cube at 50-g force down to 10-lb 3-in. cube at 120-g force. All controls and indicators are conveniently located on panel. Heavy dural plate shield protects operator. Made by **Genisco Inc.**, Dept. NED, 2233 Federal Ave., Los Angeles 64, Calif.

For more details circle **NED-6463** on enclosed inquiry slip

Standard models available in capacities from 200 lbs. x 6" wide to 10,000 lbs. x 40" wide.

IS YOUR SHOP CROWDED?

ROWE "Easy Load" AUTOMATIC COIL CRADLES

Designed to use an absolute minimum of floor space in handling coils to your press operation.

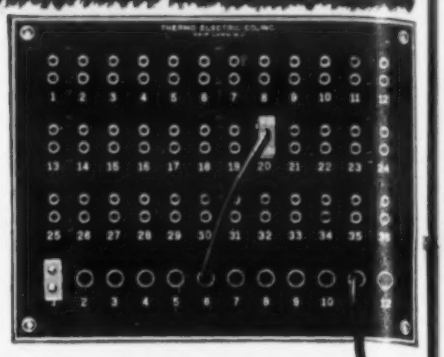
★4 Power-driven rolls and instant width adjustment. ★Write today for literature and name of nearest distributor.

ROWE MACHINERY & MANUFACTURING CO., INC.
1506 N. INDUSTRIAL BLVD., DALLAS, TEXAS

For more details circle **NED-6464** on enclosed inquiry slip

SAVE TIME CONNECTING THERMOCOUPLE CIRCUITS with QUICK COUPLING CONNECTOR PANELS

Panel for 36 Thermocouples and 12 Pyrometer Connections



PAT. PEND.

A rapid and flexible method for connecting numerous thermocouples to pyrometers—regardless of their location. One central point for making and breaking circuits.

Polarized Plugs and Jacks are made in all standard calibrations—Iron Constantan, Copper Constantan and Chromel Alumel.

Write today for Catalog 23T

Thermo Electric CO. INC. FAIR LAWN NEW JERSEY

For more details circle **NED-6465** on enclosed inquiry slip

GRC ZINC ALLOY WING NUTS GET AROUND

you'll see them on GENERAL ELECTRIC EM-PM FOCUS COILS

. . . and wherever specifications call for fastenings that are rustproof • corrosion-resistant • easy to assemble and disassemble • extra easy to service • durable, dependable, attractive.

World's largest producers of die cast Wing Nuts

Available in all popular thread sizes and commercial finishes. Also specials made to order.
Write for samples and prices today.

GRIES REPRODUCER CORP.
82 Willow Ave., New York 54 • MO 9-2476

For more details circle **NED-6466** on enclosed inquiry slip

For High Production on Small Parts

LOW COST AIR OPERATED *Han-D-Press*

designed to meet high production schedules on

- ASSEMBLING
- STAKING
- RIVETING
- PUNCHING
- MARKING
- PRESSING

Bulletin No. 251 sent on request. Gives full description with engineering data.

Replace old hand-operated arbor presses with Hannifin's versatile "Han-D-Press"! Handle light production operations . . . faster . . . and at lower cost! Electric control. Hand or foot operated. Two popular sizes—½ ton and 1 ton.

HANNIFIN

Hannifin Corporation • 1127 S. Kilbourn Ave., Chicago 24, Ill.

For more details circle **NED-6467** on enclosed inquiry slip

CONGRESS LUBRALIFE PILLOW BLOCKS

TYPE A

Self-aligning and permanently lubricated sponge iron section acts as a wick lubricating the shaft by capillary action. Vibration proof rubber grommets with static dissipator are available. Flange type bearings also available. Write for details.

PULLEYS and V-BELTS

We are in position to furnish complete lines of pulleys and V-belts from stock. Capacities up to 200 H.P.

•

World's Largest Manufacturer of FHP Pulleys

•

WRITE FOR CATALOG

CONGRESS DIAMOND BORED DRIVES
3750 E. OUTER DRIVE, DETROIT 34, MICH.

▲ For more details circle **NED-6468** on enclosed inquiry slip ▲

Sabin COIL TRUCK

SAVES TIME, LABOR *In* **HANDLING--**
STRIP COILS,
WIRE COILS,
BOX STRAPPING,
WHEELS,
TIRES,
LATHE CHUCKS
OR FACE PLATES,
AND ALMOST
ANYTHING WITH
A HOLE THROUGH
IT.

AN EASY ONE-MAN JOB!

You run truck up to article, passing arm through hole, then pull back on handle to pick it up. Follower wheel minimizes trucking effort.

WRITE FOR BULLETIN

The Sabin Machine Co.
6536 Carnegie Avenue
Cleveland 3, Ohio

OTHER SABIN TRUCKS: Barrel, Keg, Box and Package Trucks; Tote Pan, Carboy, Shop and Special Trucks.

▲ For more details circle **NED-6469** on enclosed inquiry slip ▲

What's Your Roll Problem?

Save your time, by sending your roll problem to the roll specialist. Rodney Hunt roll specialists have had 30 years of experience. The chances are they have the answers to your needs. Just phone or write Rodney Hunt and we'll be glad to analyze your roll problem — it's part of our roll service.

RODNEY HUNT

Industrial Roll Division
RODNEY HUNT MACHINE CO.
473 Maple Street Orange, Massachusetts, U.S.A.

▲ For more details circle **NED-6470** on enclosed inquiry slip ▲

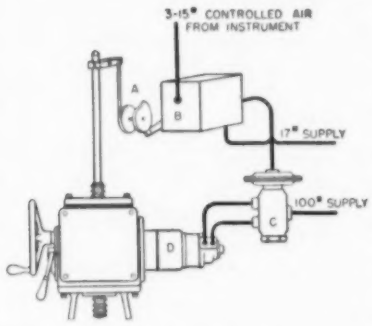
ALLOY CENTERS are wear and abrasion resistant

Because M-40-U centers and half centers have deep core of wear and abrasion resistant alloy, they can be re-dressed hundreds of times. Core is induction brazed in steel shank and is supported by shank throughout its life. Centers are available with Morse, Jarno or Brown & Sharpe shanks in lengths of 3⅝ to 12¾ in. Special centers can be made to user's specifications also. Made by **Gorham Tool Co.**, Dept. B-53, 14400 Woodrow Wilson Ave., Detroit 3, Mich.

▲ For more details circle **NED-6471** on enclosed inquiry slip ▲

VALVE OPERATOR applied to catalyst slide valves

Designed for operation of catalyst slide valves on throttling control services, Cono Rotomotor insures accurate, sensitive and positive positioning of these large valves used for handling spent and regenerated catalyst or controlling back pressure of flue gases. Pneumatic gear-driven valve operator functions entirely from normal plant air supply. Handwheel and declutching lever provide for manual operation if desired. Repositioning is accomplished by tape type mechanism which permits long travels with accuracies of valve stem positioning to within 1/500th part of total valve stroke. Rotomotors are available in models for various travels, speeds, stem diameters and thrust loads. Made by **Conoflow Corp.**, 2101 Arch St., Philadelphia 3, Pa.



▲ For more details circle **NED-6472** on enclosed inquiry slip ▲

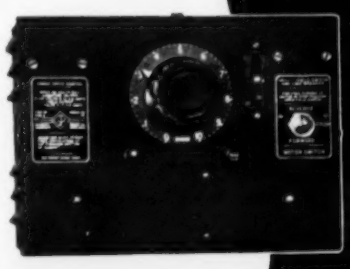
INFRARED DRYING UNITS lamps can be tilted to any angle

Available in four-lamp strips or multiples of four, Nalco Unistrut infrared portable units can be used for various types of industrial drying and baking operations. Assemblies can be tilted to any angle or swung in vertical or horizontal positions. Inside-aluminumed lamps, mounted on Unistrut framework, are wired for any voltage and phase. Made by **North American Electric Lamp Co.**, 1013 Tyler St., St. Louis 6, Mo.

▲ For more details circle **NED-6473** on enclosed inquiry slip ▲

another new **Variac**® SPEED CONTROL

for ½ HP D-C Motors from A-C Lines



Type 1700-B
VARIAC Speed Control
$165.00

Selenium Rectifier – *no waiting for vacuum tube to warm up – not necessary to idle rectifier for instant starting – practically indefinite rectifier life under ordinary operating conditions.*
Uses Standard ½ HP Compound or Shunt Motor
Instant Starts—Extra Fast Stops *with dynamic braking*
Single Switch *conveniently located for "Forward", "Stop" and "Reverse"*
Continuously Variable Speed Range *down to zero at constant torque*
Negligible Torque Pulsation
Excellent Regulation
Quick Starting under Heavy Loads

Write for VARIAC Control Bulletin

GENERAL RADIO Company
275 Massachusetts Avenue, Cambridge 39, Massachusetts
90 West Street NEW YORK 6 — *920 S. Michigan Ave.* CHICAGO 5 — *1000 N. Seward St.* LOS ANGELES 38

▲ For more details circle **NED-6474** on enclosed inquiry slip ▲

This Syntron F-33 Feeder, shown regulating feed of chrome ore to a dry pan crusher in a refractory, replaced chute that fed by gravity and required an operator to prevent "flushing". Syntron Feeder provides smooth, even, controllable flow of ore, resulting in a higher mill efficiency and more uniform product.

SYNTRON
"Vibra-Flow"

VIBRATORY FEEDERS

With Variable Control of Rate of Flow

WILL HANDLE—most all types of bulk materials—from light, fine powders to heavy, coarse lumps—hot or cold—dry or damp. **AT**—variably controlled rates from pounds to hundreds of tons per hour. **TO**—crushers, belts, screens, mixers, blenders, ovens, driers, packaging machines, etc. **WITH** exceptionally low maintenance costs due to absence of motors, gears, accessories and other wearing parts.

Write to—

SYNTRON CO.
405 Lexington Ave. Homer City, Pa.

▲ For more details circle **NED-6475** on enclosed inquiry slip ▲

"Steel strapping acts as insurance

for the shipper, carrier and consignee."

— says Mr. Charles P. Palin
Freight Operations Manager
PACIFIC INTERMOUNTAIN EXPRESS

"In a cross-country operation like ours, with pick up service on one end and delivery on the other, we find steel strapping essential for the proper protection of many types of shipments."

From first-hand experience, Mr. Palin and countless others responsible for the safe transit of goods, recognize steel strapping as the trade mark of good packaging. Steel strapping permits the use of lighter, less expensive containers — at a big saving of space and weight. And with containers strapped into conveniently handled units, loading-unloading is faster, easier.

On defense production and in essential industries, steel strapping is at work saving time, labor and equipment. After the present emergency you can make these savings on your shipments. The Stanley Works, Steel Strapping Division, New Britain, Connecticut. Offices in principal cities.

STEEL STRAPPING AND CAR BANDING SYSTEMS

STANLEY
Reg. U. S. Pat. Off.

HARDWARE • TOOLS • ELECTRIC TOOLS • STEEL STRAPPING • STEEL

▲ For more details circle **NED-6476** on enclosed inquiry slip ▲

Cut Costs
WHEN CUTTING WOOD OR PLASTICS

MEYCO

CARBIDE TIPPED CIRCULAR SAWS ARE ENGINEERED FOR TUNGSTEN CARBIDE

MEYCO carbide tipped saws are in a class by themselves, because the blades have been engineered for the addition of the carbide cutting teeth. It is this engineering know-how of building a carbide tipped saw from the ground up, that has made the MEYCO circular saws unique . . . that has accounted for repeat orders and a customer satisfaction of which we are justly proud.

VIBRA-FREE*

THE NEWEST THING IN CIRCULAR SAWS

Vibra-Free* dampers make it possible to distribute the stresses and strains inherent in every blade MORE EVENLY, thus producing an even better carbide tipped saw than has been possible heretofore. Vibra-Free* dampers absorb the sound waves set up by the motion of the saw, thus doing away with the objectionable, high-pitched whine, plus the rough cut produced by vibration.

Write for new catalog describing these Meyco Saws in detail.

*T. M. Reg. U. S. Pat. Off. 19

W. F. MEYERS CO., INC., BEDFORD, INDIANA

For more details circle **NED-6478** on enclosed inquiry slip

SPRACO NOZZLES

Write for NOZZLE CATALOG *to*
SPRAY ENGINEERING CO.
106 CENTRAL STREET • SOMERVILLE 45, MASS.

For more details circle **NED-6479** on enclosed inquiry slip

IF YOU HAVE A SPECIAL INTERCOM PROBLEM

THAT YOU WANT TO SOLVE QUICKLY, EASILY, AT LOW COST

Investigate

WHEELER

Sound Powered
TELEPHONES

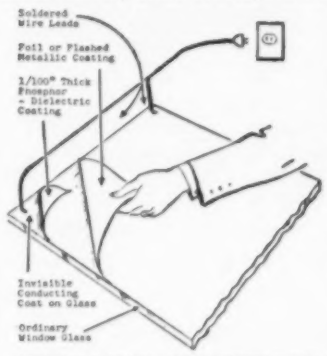
- NO BATTERIES
- NO OUTSIDE POWER
- NO ELECTRICAL HAZARD
- NO MAINTENANCE

Yes — all this and PROVED performance, too
Write for information, now
THE WHEELER INSULATED WIRE COMPANY, Inc.
Division of the Sperry Corp.
1108 EAST AURORA ST., WATERBURY 20, CONN.

For more details circle **NED-6480** on enclosed inquiry slip

PANEL LIGHTING SYSTEM
coated special glass sheets use electro-luminescent principle

A lighting method whereby flat sheets of glass which give off light can be made into luminous ceilings, walls, clock faces, stair risers, switch-plates and signs operates on conventional alternating current. Called Panelite, the 'area' source of light consists of sheet of special conductive glass on which is placed a phosphor - dielectric coating and a layer of vaporized aluminum. Wires connected to edges of sheet use 110-v 60 cycle current. Two coatings add less than 0.01-in. to thickness of glass.



COMPOSITION OF "ELECTRO-LUMINESCENT" SHEET (Panelite)

Light produced is more than enough for night clocks. For greater brightness, transformer is introduced into circuit to increase voltage to 400 to 500 v and multiply light output by 20. A 4 x 6-ft panel consumes less energy than 25-w light bulb. Panels will be made in white, golden yellow and light blue, with brilliant green being commercially available now. Made by **Sylvania Electric Products Inc.,** Dept. JPW, 1740 Broadway, New York 19, N. Y.

For more details circle **NED-6481** on enclosed inquiry slip

SPRAY PAINTING MACHINE
mass produces various small parts at rates up to 3600 per hour

Parts can be wet painted, one color after another, by this air-operated and hydraulically-controlled automatic spray painting machine for mass production of variety of small parts. Spraying is from underneath against masks. Surplus spray is sucked off and exhausted from back of machine. Electroformed metal masks, interchangeable in these machines, fit flush with table. Parts are loaded manually by operator, who holds parts face down against mask. Although spraying is automatic, length of spray time and speed of loading cycle are controlled by dials on control panel. Another dial regulates amount of paint sprayed.

Rapidity of painting is adjustable to suit nature of part and to match speed and skill of operator. Rates up to 3600 pieces per hour are possible. Masks with bridging to hold loose centers are revolved 180 degrees plus during painting to circumvent shading. For long parts, guns are available which travel length of work. A conveyor belt, which can flow across rear of table, brings work to operator and carries it away, freeing both hands for loading. Made by **Conforming Matrix Corp.,** 338 Toledo Factories Bldg., Toledo 2, O.

For more details circle **NED-6482** on enclosed inquiry slip

Boost Output with MEAD WORK FEEDERS

Feed Work Fast to Drill or Tap!

As - fast - as - you - can - step-on - a - button the sensational new Mead pneumatic WORKFEEDER delivers, holds, ejects small parts to be drilled, reamed or tapped. Accommodates stampings, castings, screw machine parts, etc. Adjustable to sizes up to 3". Foot automatic control; operator's left hand is free to keep hopper loaded. Write for new Mead AIR POWER Catalog describing "Mead Family" of air operated fixtures and devices.

MEAD SPECIALTIES COMPANY
4114 NO. KNOX AVE., DEPT. NA-81, CHICAGO 41, ILL.

For more details circle **NED-6483** on enclosed inquiry slip

CUTS
CORROSION
LOSSES

★ TYGON plastic Paint protects metal, concrete and wood from attack by acids, alkalies, oils, fresh or salt water. Tough, flexible film resists impact. Non-contaminating to solutions.

Write for TEST SAMPLES

U. S. STONEWARE
Since 1865 • Akron 9, Ohio

90C

For more details circle **NED-6484** on enclosed inquiry slip

Well Stacked!

Portable stacking racks for general and specialized unit handling and storage, pallet stacking racks, coil stacking racks—Whatever your problem let us give you the benefit of our extensive rack engineering and manufacturing experience.

Write for our catalog. It illustrates all types.

EQUIPMENT MFG. INC.
21566 Hoover Rd., Detroit 5, Mich.

For more details circle **NED-6485** on enclosed inquiry slip

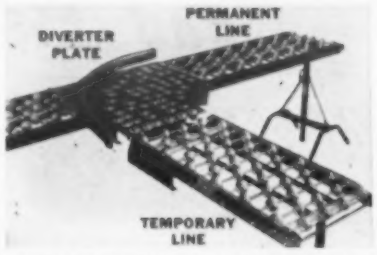
MECHANICAL MUSCLES
WHICH ELIMINATE THE NEED FOR EXTRA HANDS — EXTRA TRIPS

PORTELVATOR©
HANDY HAMILTON
PORTABLE ELEVATING TABLE
LIFTS — LOWERS — LEVELS
TRANSPORTS
★
learn the penny-pinching particulars, write for this
FREE BULLETIN NO. P-505

THE Hamilton TOOL COMPANY
901 HANOVER STREET • HAMILTON • OHIO • U • S • A

For more details circle NED-6486 on enclosed inquiry slip

CONVEYOR DIVERTER
moves cartons in and out of storage



Temporary spur line can be set up quickly on either side of main conveyor line with Flow Diverter that connects at any point of Rapid-Wheel gravity conveyor. Use is to move cartons in and out of storage bays. Connecting yoke bracket in diverter kit is hooked over side frame of permanent conveyor, and support stand is placed under opposite end of 3-ft aluminum section. Diverter plate with wheels projecting slightly above surface is placed on permanent line at point of transfer from one line to other. Flow diverter, supplied with adjustable aluminum guard rail, can be used with 18 in. width Rapid-Wheel or aluminum wheel gravity conveyor that has either 16 or 18 wheels per foot. Made by **Rapids-Standard Co.**, Dept. FD, 342 Rapistan Bldg., Grand Rapids 2, Mich.

For more details circle NED-6489 on enclosed inquiry slip

GROOVED ALLOY WHEELS
carry loads on angle iron rails

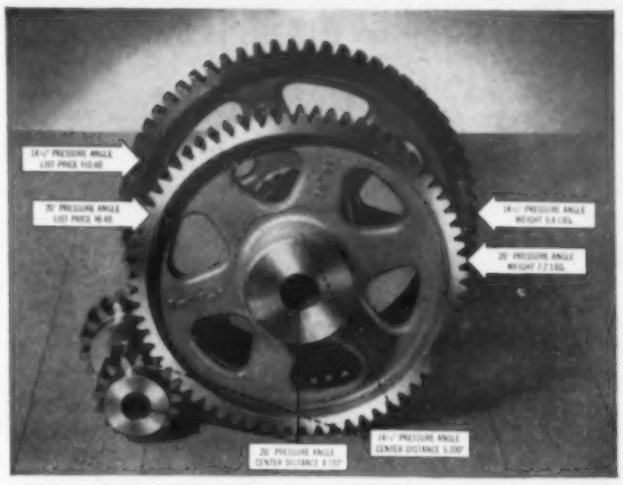
Available in 4 to 10-in. diameters with face widths of 2 to 3 in., Semisteel V-grooved wheels can be supplied with or without roller bearings. Relief groove directs load equally to both faces of inverted angle iron rail over which wheels roll. Though designed for use on tracks, wheels are suitable also for floor applications. Load carrying capacities range from 500 to 2500 lb. Made by **Albion Industries, Inc.**, Dept. NED, Plastic Rd., Albion, Mich.

For more details circle NED-6490 on enclosed inquiry slip

RADIATION SURVEY METER
portable unit makes spot checks

Measuring beta and gamma radiation in 'hot' laboratories handling levels of radioactivity in range of millicuries is possible with improved portable radiation survey meter offered in three full scale ranges of 15, 150 and 1500 mr/hr. Uses include making spot checks of amount or radiation from each experimental setup where radioisotopes are used, monitoring storage and shipping containers and measuring roentgen dosage rates from x-rays with energies as low as 50 kv. Calibration accuracy is plus or minus 10 per cent of full scale, maintained throughout battery life of 800 hr. Small size and gun-shaped construction allows getting into 'tight' places. Chamber dimensions are 3 x 6 in. Made by **Tracerlab, Inc.**, 128 High St., Boston 10, Mass.

For more details circle NED-6491 on enclosed inquiry slip



Specify BOSTON 20° PRESSURE ANGLE GEARS

and SAVE
16.9% in Space
23.4% in Weight
21.2% in Cost
Both the 20° and the 14½° Pressure Angle pairs of gears pictured are rated 1.2 HP.

Boston standardized 20° pressure angle gears are available *from stock* at 80 authorized Boston Gear distributors—one near you

For stock sizes and types, see Boston Gear Catalog No. 55. Free copy mailed on request.

BOSTON GEAR WORKS
69 HAYWARD ST., QUINCY 71, MASS.

For more details circle NED-6493 on enclosed inquiry slip

PRINTED
Topflight Tape
ADHESIVE
Warning Labels
Parts Numbers
Identification
Instructions
CELLOPHANE-ACETATE-CLOTH-PAPER
The Most Complete Line Available

TOPFLIGHT TAPE CO.
YORK, PENNSYLVANIA — U. S. A.

For more details circle NED-6487 on enclosed inquiry slip

AIR COOLED TRANSFORMERS UP TO 167 KVA

CLASS "B" INSULATION

The use of Acme Electric Air Cooled transformers eliminate the need for a separate transformer vault, expense of oil for insulating purposes and frequent inspection. The Class "B" insulation (80° C temperature rise) line of Acme Electric transformers are available in capacities from 3 to 167 KVA with primary voltages up to 2400 volts.

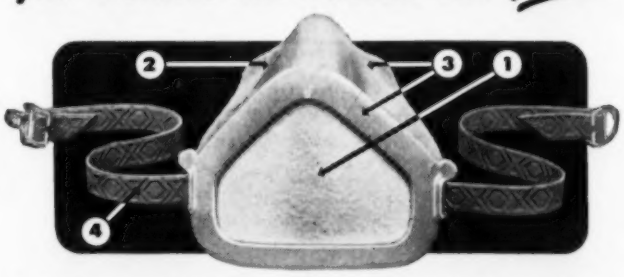
Their design assures high efficiency performance. Their construction guarantees long trouble-free service.

ACME ELECTRIC CORPORATION
308 WATER ST. CUBA, NEW YORK

Acme ACME Electric
TRANSFORMERS

For more details circle NED-6488 on enclosed inquiry slip

4 Reasons why FLEX-A-FOAM (and only FLEX-A-FOAM) provides Dust Protection your workers will welcome and Wear



1. Pure latex washable filter purifies the air of non-toxic nuisance dusts as small as 1/25000 of an inch — yet it's easier to breathe and talk through than an ordinary pocket handkerchief! Out-wears throw-away type filter as much as 100 to 1.

2. Perfectly contoured for self-adjusting fit to every size and shape of face—designed for wear with spectacles or goggles with perfect comfort.

3. Positive-locking frames of polyethelene plastic, so flexible and tough they're unbreakable in normal usage. Complete mask weighs only 1 ounce. Attractively styled to suit the most discriminating wearer.

4. Defiance non-skid, natural rubber head-band with adjustable hook-and-eye fasteners holds mask firm and comfortably snug without tension or hair-pulling.

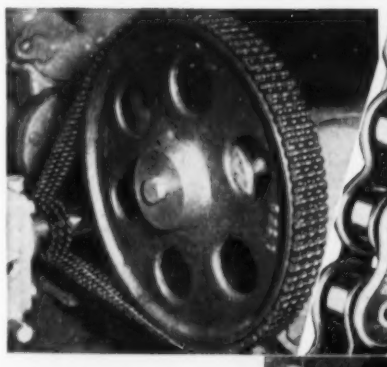
FLEX-A-FOAM FILTER MASK

Sample $1.40 postpaid
★
Write for new descriptive folder

THE GOGGLE PARTS COMPANY • CLEVELAND 13, OHIO

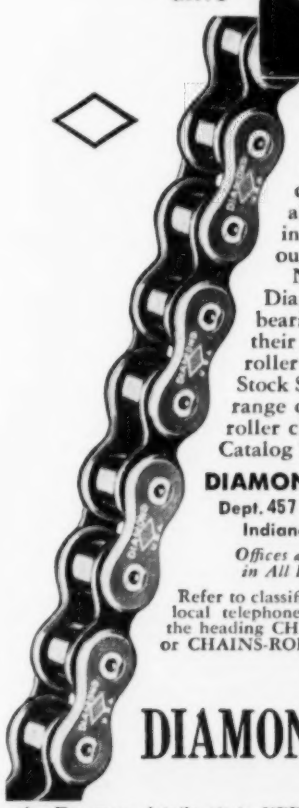
For more details circle NED-6492 on enclosed inquiry slip

IMPROVE MACHINERY PERFORMANCE WITH DIAMOND ROLLER CHAINS



No slip even where teeth almost touch

Long center drive



• Regardless of center distances and speeds, Diamond Roller Chains transfer power without slip at 98-99% efficiency. They provide the reliability and long life so important in the present day effort to speed output and reduce delays.

Not depending on friction, Diamond Roller Chains are easy on bearings and widely recognized for their high uniform quality—the No. 1 roller chains since 1890.... Diamond Stock Sprockets are available in a wide range of sizes and types to meet most roller chain requirements.... Write for Catalog 709.

DIAMOND CHAIN COMPANY, Inc.
Dept. 457, 402 Kentucky Ave.
Indianapolis 7, Indiana
Offices and Distributors in All Principal Cities

Refer to classified section of your local telephone directory under the heading CHAINS or CHAINS-ROLLER.

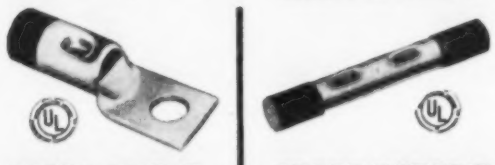
DIAMOND ROLLER CHAINS

For more details circle NED-6494 on enclosed inquiry slip

BURNDY • BURNDY • BURNDY • BURNDY • BURNDY

BURNDY • BURNDY

champs for efficiency



HYLUGS ↔ HYLINKS

One-piece, pure-copper, indent-type connectors, installed with efficient Hytools and Hypresses. Conforms closely to conductor—easier to tape, takes less space. Most economical means of connection. For conductors from No. 22 through 2000 Mcm.

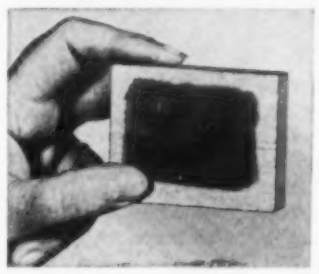
BURNDY

BURNDY ENGINEERING CO., INC. NEW YORK 54, NEW YORK

For more details circle NED-6495 on enclosed inquiry slip

New Processes and Materials

WATER REPELLENT for uncoated exterior masonry walls



Penetrating from ¼ to ⅜-in. into masonry surfaces, Monoseal silicone base liquid water repellent is applied by brush or spray to uncoated exterior masonry walls. Transparent, colorless and thin, this liquid does not alter surface appearance. Only one coat is necessary. Because of silicone content, water repellent does not close up masonry pores, yet is impervious to oxidation and prevents efflorescence. Application can be to brick, concrete, concrete block, stucco, stone, asbestos shingles, unglazed tile and masonry previously painted with water mixed paints. Photo shows sandstone block saturated with water in center, but dry at edges where coated with Monoseal. Made by **Monroe Co.**, Dept. M-1, 10703 Quebec Ave., Cleveland 6, O.

For more details circle NED-6497 on enclosed inquiry slip

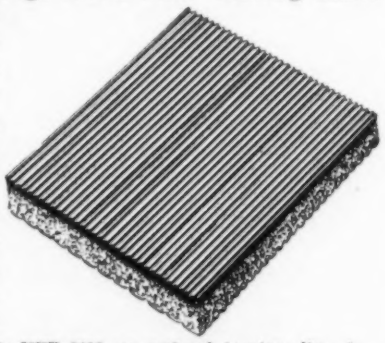
FIRE EXTINGUISHING FOAM for flammable liquid fires

Smothering, close-knit blanket of fire killing foam is developed by Aer-O-Foam 99 to extinguish fires involving polar solvents or petroleum products. Tests indicate its effectiveness in combatting alcohol, ketone and ether fires. This liquid type mechanical foam will not break down readily or disintegrate. If foam mass is broken, it reseals quickly. It also insulates and adheres to all types of surfaces. Noncorrosive, liquid is free-flowing at temperatures as low as 10° F and can be used with existing 6 per cent mechanical foam making proportioning devises. Made by **National Foam System, Inc.**, Dept. 99, West Chester, Pa.

For more details circle NED-6498 on enclosed inquiry slip

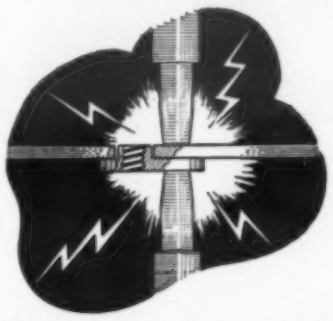
ANTIFATIGUE MATTING lessens foot and leg strain

Rug-like softness is imparted to concrete floors with Lite Step floor matting which combines ⅛-in. corrugated rubber top with ¼-in. sponge rubber base. Matting comes in all lengths, up to 72 in. wide, and is intended to relieve foot and leg fatigue for walking or standing workers. Lite Step can be cut or manufactured to desired shapes. Made by **Ace Hose & Rubber Co.**, 1710 S. State St., Chicago 16, Ill.



For more details circle NED-6499 on enclosed inquiry slip

OHIO WELD NUTS
For economical Spot Welding



Ohio SN Spotweld Nuts
No retapping required!
Thread sizes in stock, (Low Carbon Steel)
No. 6-32 to ⅜-24

Stainless steel sizes made to order in production quantities.

For dependable Projection Welding

Ohio WS Square Weld Nuts
Thread sizes in stock, (Low Carbon Steel)
No. 6-32 to ½-20
No retapping required!
No burning or discoloration!
For samples and welding information, send to
THE OHIO NUT & BOLT COMPANY
608 Front St., BEREA, OHIO

For more details circle NED-6501 on enclosed inquiry slip

If..... 90 90 90 90 days hath September, April, June and November...

your Royal dealer could give you 'One-month' delivery...maybe!

Why does it take so long to get delivery on Royal furniture? Here are four very good reasons...

1. Government purchasing demands have increased.
2. Material shortages and restrictions have developed.
3. D.O. orders take priority over non-defense production.
4. The overwhelming increase in Royal's popularity on today's consumer market!

If you can wait...you'll be wise to wait for Royal!

Royal
METAL FURNITURE SINCE '97

ROYAL METAL MANUFACTURING COMPANY
175 NORTH MICHIGAN AVENUE • CHICAGO 1
New York • Los Angeles • Michigan City, Ind. • Warren, Pa. • Preston and Galt, Ontario

For more details circle NED-6502 on enclosed inquiry slip

No other battery operated Walkie truck can match this service record

Moto-Platform Truck
14 YEARS on the job and still going strong.

Use MOTO-TRUCS FOR SPACE, LABOR SAVING AND LONG SERVICE.

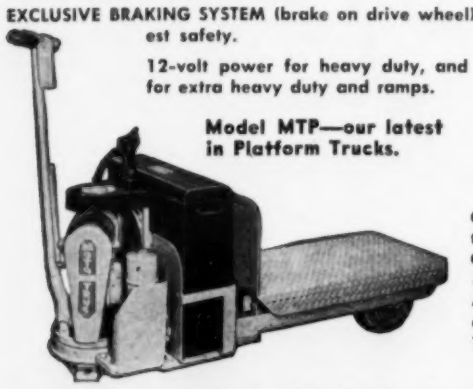
Moto-Trucs (Platform, Pallet and Hi-Lift types) are the shortest battery operated walkie trucks built, due to compact design of power unit. Smaller turning radius permits operation in narrower aisles.

EASIEST OPERATION through exclusive easy grip roller type handle, minimizing operator fatigue.

EXCLUSIVE BRAKING SYSTEM (brake on drive wheel) ensures greatest safety.

12-volt power for heavy duty, and higher voltage for extra heavy duty and ramps.

Model MTP—our latest in Platform Trucks.



Only 24" longer than your load. Capacity: 4,000 and 6,000 pounds. Also built to handle loads up to 10,000 pounds.

Write for Bulletin No. 51

The MOTO-TRUC Co.
1953 E. 59th Street
CLEVELAND 3, OHIO.
Originators and world's largest exclusive manufacturers of motorized, battery operated walkie type trucks

For more details circle NED-6496 on enclosed inquiry slip

The right teeth make a big difference

Proper design, even height, uniform sharpness and correct hardening of teeth are very important in increasing the life and efficiency of a file.

Nicholson manufacture has always given uppermost thought to these vital factors relating to the myriads of tiny "business ends" of one of industry's most indispensable hand tools.

Thus, it can be said that Nicholson and Black Diamond files "speak through their teeth." And what they say is, "*Twelve perfect files in every dozen*—made from top-quality file steel and 87 years' experience." *Sold through industrial distributors.*

HOW TO SELECT, USE AND CARE FOR *The right file for the job* is described in words and pictures in Nicholson's book, "FILE FILOSOPHY." FREE. How many copies do you need?

NICHOLSON FILE CO., 34 Acorn St., Providence 1, R. I.
(In Canada, Port Hope, Ont.)

NICHOLSON U.S.A. NICHOLSON A FILE FOR EVERY PURPOSE BLACK DIAMOND TRADE MARK

For more details circle NED-6500 on enclosed inquiry slip

Built for the GRIND

- No stuffing box
- No submerged bearings
- No priming problem
- No trouble

for ASH HANDLING DRAINAGE PUMPING ABRASIVE or CORROSIVE MATERIALS

Nagle Type "SW-OB" Pump. Sizes 1" to 8". Capacities up to 1800 g.p.m. Heads up to 100'.

Nagle Pumps, Inc.
INDUSTRIAL PUMPS FOR ABRASIVE APPLICATION
1265 Center Ave., Chicago Heights, Ill.

For more details circle NED-6503 on enclosed inquiry slip

3-LB. ROTOR SCALER CLEANS WELDS FASTER

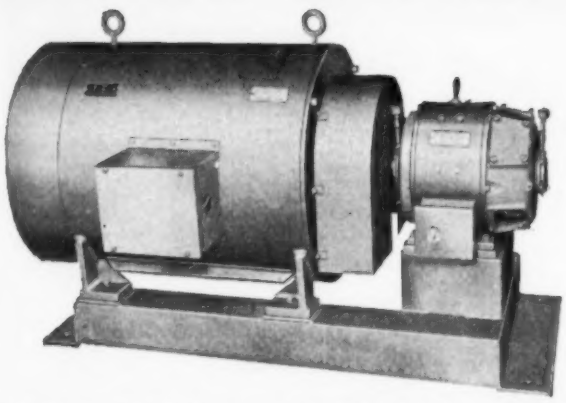
"PAID OFF" IN 25 DAYS

A FABRICATING shop reports the new Rotor S-1 Scaler cleans more welds per day because it is lighter, shorter, easier to get into hard-to-reach places. Savings paid off cost in 25 days. Weighs only 3 pounds; is 10 inches long. Safety retainer chisel allows long reach into corners—you don't have to hold chisel. For peening, rust and scale removal, star drilling, light chipping. Ask for Bul. 33.

THE ROTOR TOOL CO.
CLEVELAND, OHIO

▲ For more details circle **NED-6504** on enclosed inquiry slip ▲

Do You Have Use For Practically Pure 400 CYCLE POWER
Less than 1/2% total Harmonics?



★ For use in Laboratory and Production testing of high performance electronic equipment Bogue has developed a line of single and three phase 400 Cycle Synchronous Motor-Generator Sets ranging from 3 to 100 KW with total harmonic content less than 1/2%. This extreme quality in wave form is secured thru precision design, careful selection of material and quality control in manufacture.

Special units with less than 1/10% total harmonics available.

These sets can also be furnished with magnetic amplifier static voltage regulators when the utmost in reliability and consistancy in voltage regulation is required. Output frequency is exactly 400 cycles at any load—no load to full load!

If you are interested in this type power, Bogue engineers will be glad to furnish oscillograms and wave analysis of typical sets built for this requirement. You can always depend on...

MAGNETIC AMPLIFIER CONTROLLED
BOGUE PRECISION POWER

Bogue Magnetic Amplifiers...
● *Provide maximum dependability with low operating costs. New type core material greatly increases performance. Completely static, no moving parts. Unaffected by vibration or shock, no warm-up period required. Write for Bulletin #86; no obligation.*

MAGNETIC AMPLIFIERS • MAGNETIC CONTROLLERS
AC & DC MOTORS • AC & DC GENERATORS
VOLTAGE & SPEED REGULATORS • SWITCHBOARDS

BOGUE ELECTRIC MANUFACTURING CO.
55 IOWA AVENUE • PATERSON 3, N. J.

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

▲ For more details circle **NED-6505** on enclosed inquiry slip ▲

New Processes & Materials

RUBBER FLOORING MATERIAL resists acids, alkalies and water

Drying to light concrete color, Vulcrete synthetic rubber flooring material bonds inseparably with wood, metal, concrete, brick, composition or similar bases. It has high resistance to point loads of considerable weight as well as to acids, alkalies, water and other destructive agents. It can be used for resurfacing or leveling worn or splintered floors. Made by **Flash-Stone Co.**, 30 E. Rittenhouse St., Philadelphia 44, Pa.

▲ For more details circle **NED-6506** on enclosed inquiry slip ▲

PHOSPHATIZING PROCESS applied by spray or immersion

Made in powdered form and used in concentration of 1 oz per gallon, Keykote phosphatizing process requires from 1 to 2 minutes for application by spray or immersion. It can be used as low as 3 pH in black iron tanks without screens as it will not "sludge out". Although not necessary, it can be rinsed where specifications require. Developed by **Kelite Products, Inc.**, 130 Elmyra St., Los Angeles 54, Calif.

▲ For more details circle **NED-6507** on enclosed inquiry slip ▲

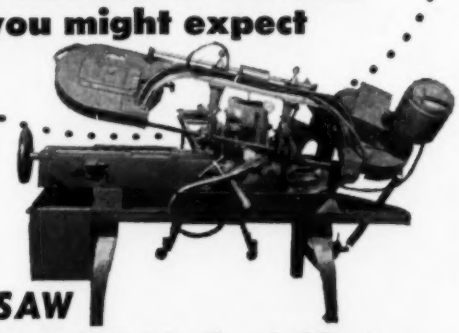
FOAMED-LATEX INTEGRATED FABRIC has improved body and wear quality

Tackle twills, cotton-back satin, woven plastic-coated fibers and many other fabrics are made practical for upholstery and home furnishing applications when they are combined with thin gages of foamed latex. Andal combination materials have cushioning action, ample body, improved wearing qualities and wrinkle resistance because fabrics are integrated with foamed latex. Natural porosity of latex and fabric are unimpaired, and combination materials can be laundered repeatedly or even boiled for sterilization purposes.

Fabrics can be die or deck cut, sewed, tacked or cemented. Any desired color of latex foam in gages from 1/16 to 1/4-in. can be integrated with most types of fabrics. Resulting combination can be furnished in widths from 45 to 65 in. on continuous rolls up to 75 yd long. Samples will be furnished upon request to **Andrews-Alderfer Processing Co.**, 128-2 Ash St., Akron 8, O.

▲ For more details circle **NED-6508** on enclosed inquiry slip ▲

Get the advantages of AUTOMATIC BAR STOCK CUT-OFF at a fraction of the cost you might expect



with a WELLS SAW and WELLS-O-BAR Feed Master

A set-up for automatic repetitive cutting need not be prohibitively expensive. By combining a Wells Metal Cutting Band Saw and a Wells-O-Bar Feed Master you can automatically cut any quantity of identical lengths of bar stock with a modest investment. See your Wells Dealer for complete information or write direct.

Wells SAWS
Wells
Products by Wells are Practical
METAL CUTTING BAND SAWS
WELLS MANUFACTURING CORPORATION
1313 HARDING ST., THREE RIVERS, MICHIGAN

▲ For more details circle **NED-6509** on enclosed inquiry slip ▲

SPEEDS POLISHING, GRINDING and BUFFING

● Amazing grinder head speeds grinding, polishing, buffing and snagging operations. **Prove it** yourself with free trial! Write us NOW.

NU-MATIC GRINDERS

● Just inflate the rubber drum with 3 to 10 lbs. air pressure, depending on operation. You easily vary the air pressure as well as type and number of grit . . . to achieve an infinite variety of operations on any surface. Dynamic balance . . . no chatter or bounce. Eliminates hand filing. Faster, better, easier . . . on stands, portable tools, backstand idlers . . . wherever ordinary grinders are used . . . on any kind of surface. On flat surfaces, Nu-Matic presents far greater contact area because Nu-Matic is resilient! And it produces a straight pattern . . . like a hand finish. Write NOW for your 25-day FREE TRIAL, complete instructions and illustrated literature. Send trial purchase order, or request a trial Nu-Matic on your letterhead. No obligation. Nu-Matic Grinders, Inc., 8223 Carnegie Ave., Cleveland 3, Ohio.

$17.50 each
F.O.B. Cleveland
(Wheel with abrasive band, only)

Send for FREE Illustrated Literature

▲ For more details circle **NED-6510** on enclosed inquiry slip ▲

WE MAKE GAGES!

Dimensionair Air Gage

DO YOU KNOW Federal has been making complete dimension-control gages for over twenty years?
DO YOU KNOW Federal has over 20,000 gage designs?
DO YOU KNOW Federal undoubtedly has a gage design that's right for *you*?
DO YOU KNOW Federal Gages are fast, accurate, easy to work?
DO YOU KNOW Federal has a nationwide gage engineering staff?
Take advantage of our experience. Submit blueprints for recommendations on your dimension-control problems . . . or write for Catalog 51. FEDERAL PRODUCTS CORPORATION, 1178 Eddy St., Providence 1, R. I.

Continuous Measuring Gage

Electronic Sorting Gage

FEDERAL
Largest manufacturer of indicating type gages . . . exclusively.

▲ For more details circle **NED-6511** on enclosed inquiry slip ▲

Simplest Way

to clean conveyor belts!

Multiple-blade S-A SPRING TYPE CONVEYOR BELT CLEANER removes every particle of wet or dry material from moving belt leaving surface practically dry and clean. Blade overlap prevents passage of dirt or slime . . . blades climb freely over belt splice. Cleaner installs easily on any belt conveyor — mounted on return run just back of discharge pulley. It has no moving parts — no power is required. Hand lever permits ready adjustment of wiper blade pressure against belt.

Write today for complete data . . . request copy of Belt Cleaner Bulletin.

1901-1951
50 years experience with bulk handling
STEPHEN S-A ADAMSON MFG. CO.
12 Ridgeway Ave., Aurora, Ill. Los Angeles, Calif. • Belleville, Ont.
Designers and Manufacturers of all Types of Bulk Materials Handling Equipment

▲ For more details circle **NED-6512** on enclosed inquiry slip ▲

1-hp. to convey 90 tons/hr.

This F-H Airslide Conveyor, in a cement plant, conveys cement raw materials from pulverizers to storage. Note the three side-discharge valves, which may be set either to direct entire material flow through one spout, or divert any portions of the material stream to obtain a desired distribution to bin below the floor.

Minimum power—only 1-hp. to convey 90 tons an hour. Not only a maximum saving in power, but the Airslide eliminates many moving, hazardous parts, lubrication, repairs, and supervision . . . reduces down-time and costly labor charges . . . simplifies the problem of spare parts from a cost, handling, and storage standpoint.

For low-cost conveying, we suggest you investigate this modern method of material handling.

FULLER COMPANY, Catasauqua, Pa.
120 S. LaSalle St., Chicago 3
420 Chancery Bldg., San Francisco 4

fuller FH-18

For more details circle NED-6515 on enclosed inquiry slip

SHENANGO Centrifugal CASTINGS ... KEY TO SAVINGS

How to save time and money on symmetrical parts!

FIRST, such parts are produced by Shenango's advanced centrifugal casting process. This means *tougher* parts because of finer, pressure-dense grain, greater strength, better elongation and freedom from sand inclusions, blow holes and other often hidden defects. It also means less waste, less machining.

Second, Shenango has the modern machining facilities and skilled workmanship to give you semi-machined or finished parts..precisely as specified..at minimum cost! The heavy trunnion bearing shown above is one of the many types of parts, large and small, ferrous and non-ferrous, regularly produced at Shenango.

SEND FOR FREE BULLETINS
Bulletin No. 150 covers non-ferrous centrifugally cast parts; Bulletin No. 151 for parts of Meehanite Metal and Ni-Resist.

SHENANGO-PENN MOLD COMPANY
Dover, Ohio
Executive Offices: Pittsburgh, Pa.

SHENANGO
ALL RED BRONZES • MANGANESE BRONZES • ALUMINUM BRONZES
MONEL METAL • NI-RESIST • MEEHANITE METAL

For more details circle NED-6516 on enclosed inquiry slip

HYDROSCALE

Proved on Hundreds of Jobs

SAVES DOLLARS IN TAKING INVENTORY AND IN CHECKING INCOMING MATERIALS

• This hydraulic crane scale weighs the load as you lift it to move it—Makes weighing so simple that it's done where it might otherwise be neglected. Cuts manpower and equipment tie-ups. Eliminates the need for weighing stations.

Low headroom
•
3 Dial sizes: 12, 24, 30"
•
Models 500 to 100,000 lbs. capacity

Write for our catalog.

HYDROWAY SCALES, INC.
20624 WEST 8 MILE ROAD · P. O. box 4754 · DETROIT 19 MICH

For more details circle NED-6517 on enclosed inquiry slip

New Processes & Materials

FIBER STRAPPING withstands pull of 275 lb

Retaining its original tensile strength and ductility under normal conditions and providing uniform tension, Fiberstrap strapping easily stands a pull of 275 lb. Reinforcement and protection of product or parcel bound by Fiberstrap results from uniform tensioning and sealing with standard Steelbinder strapping tool. Strap has soft and smooth surface that is nonabrasive and nonadhesive. It is made in standard ¾-in. width, 0.040-in. thick. Coils of 1750 ft, weighing 25 lb are available. Price per foot is comparable to that of light weight steel strapping. Made by **A. J. Gerrard & Co.**, 1954 Hawthorne Blvd., Melrose Park, Ill.

For more details circle NED-6518 on enclosed inquiry slip

DETERGENT CLEANERS suited for hard-to-remove soils

Action of solubilizing cleaning compositions is based on oversize micelles formed by various ingredients which have property of dissolving not only water-soluble soils, but also water-insoluble soils. They have capacity of removing solid soils by detergent action and continue to clean effectively even when loaded with soil. Such complex soils as buffing compounds, greases and pigmented drawing compounds can be removed. Designated as SC-3, SC-21, SC-23 and SC-24, cleaners have practically neutral pH, good solubility and dispersibility in water and moderately high flash point. SC-3 is effective hand cleaner, with or without water rinse. Developed by **Pennsylvania Salt Mfg. Co.**, 932 Widener Bldg., Philadelphia 7, Pa.

For more details circle NED-6519 on enclosed inquiry slip

HEAT RESISTANT PAINT is useful in 200 to 700° F range

Suitable for both interior and exterior use by brush or spray application, type M aluminum heat resistant paint resists moderately high temperatures, fumes, moisture, mild acids and alkalies. It will set in 3 hours and dry in 18. Normal coverage is 550 sq ft per gallon, and paint can be obtained in 1, 5 and 55-gal cans and drums. Made by **Speco, Inc.**, Dept. RSA, 7308 Associate Ave., Cleveland 9, O.

For more details circle NED-6520 on enclosed inquiry slip

BRADY QUIK-LABEL PIPE MARKERS

FAST... POSITIVE IDENTIFICATION

For a few cents per pipe, you can equip your entire plant with Brady QUIK-LABEL Pipe Markers. You can get a uniform system of pipe identification based on A.S.A. Standard A13. Names of materials printed in large black letters on correct A.S.A. background colors — no hand stenciling, painting, or hard to remember codes. Anyone who can read can tell at a glance the pipe contents and direction of flow. Over 235 different markers and direction arrows in stock. Specials made to order.

Brady QUIK-LABELS stick without moistening—applied in a jiffy, Silicone Plastic treated to resist dirt, grime, moisture—for indoor or outdoor service.

Brady Pipe Markers leave no room for doubt . . . or TRAGEDY.

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DISTRIBUTORS IN OVER 125 PRINCIPAL CITIES

MANUFACTURERS OF SELF-STICKING PRODUCTS
W. H. BRADY COMPANY
1692 E. SPRING STREET • CHIPPEWA FALLS, WIS.

For more details circle NED-6522 on enclosed inquiry slip

you save 50% in TANK HEATING and COOLING with PLATECOIL (REPLACE PIPE COILS)

★ You SAVE 50% in tank SPACE
★ You SAVE up to 50% in initial COST
★ You have 50% LESS WEIGHT to handle
★ You SAVE 50% in maintenance LABOR as plates are changed from outside the tank without dumping solution

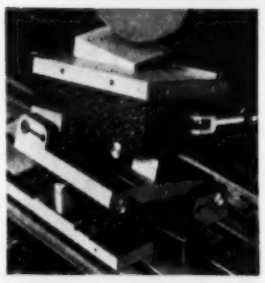
. . . besides all these you get faster heating or cooling. Take advantage of the engineering assistance offered by Kold-Hold to help you with your heat transfer problems.

Send for complete technical manual and descriptive Bulletin No. P57.

PLATECOIL Division
KOLD-HOLD MFG. CO.
LANSING 4, MICHIGAN

For more details circle NED-6523 on enclosed inquiry slip

ANGULAR SET-UPS to gauge-block accuracy IN A FEW MOMENTS



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the Magna-Sine

Any angular set-up, single or compound, takes only the time to look up the angle in the Robbins Table of Constants and to insert the indicated gauge blocks between the Magna-Sine plates. It's fast—it's positive, to gauge-block accuracy. Work is held by magnetic attraction. In two models and two sizes; also in non-magnetic models for inspection work.

OMER E. Robbins COMPANY
Manufacturers of the MAGNA-SINE and Other Precision Tools
5722 TWELFTH ST. • DETROIT 8, MICH.

For more details circle NED-6521 on enclosed inquiry slip

YOURS FOR THE ASKING

EX-CELL-O's COMPLETE BUSHING GUIDE

XLO

Here is the bushing buyer's most useful tool—a complete listing of styles and sizes of A.S.A. Standard Drill Jig Bushings carried in stock by Ex-Cell-O at Detroit, New York, Los Angeles, and Toronto. If you have not yet received your copy of Bulletin 35371, write to Ex-Cell-O today.

EX-CELL-O CORPORATION
DETROIT 32 • MICHIGAN

For more details circle NED-6524 on enclosed inquiry slip

HEAVY DUTY

DURABLE-RUGGED ALUMINUM STEP LADDERS

That extra quality in double rung construction makes these ladders preferred by many plants for those tough jobs. "Safe-Weights" are built to resist that tendency to weave and wobble.

ALUMINUM FABRICATION FACILITIES AVAILABLE FOR SUB-CONTRACT

LOUISVILLE Safe-Weight ALUMINUM PRODUCTS

WRITE WIRE PHONE LOUISVILLE METAL PRODUCTS CO.
1101 W. Oak St., Dept. A-1, Louisville 10, Ky.

For more details circle NED-6525 on enclosed inquiry slip

BAKER THAT THESE THE ONLY TRUCK GIVES YOU IMPORTANT ADVANTAGES

THE MOST EFFICIENT POWER AXLE FOR INDUSTRIAL TRUCKS

THE STRONGEST FRAME FOR INDUSTRIAL TRUCKS

THE SIMPLEST TRAILING AXLE FOR INDUSTRIAL TRUCKS

Yours for the Asking!

16-page picture-story manual "CARE and MAINTENANCE of INDUSTRIAL TRUCKS." Write for your copy today.

BAKER INDUSTRIAL TRUCK DIVISION of The Baker-Raulang Company
1245 West 80th Street, Cleveland 2, Ohio

Baker INDUSTRIAL TRUCKS

For more details circle NED-6526 on enclosed inquiry slip

ARCOS Low Hydrogen Electrodes Weld High Tensile Steels
• Without Preheating
• Free of Underbead Cracks

USS MAN-TEN — United States Steel Co.
HI-STEEL — Inland Steel Co.
YOLOY — Youngstown Sheet & Tube Co.
N-A-X LOW-ALLOY STEELS — Great Lakes Steel Corp.
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U-S-S COR-TEN — United States Steel Co.
REPUBLIC ALDECOR — Republic Steel Corp.
As well as other low alloy steels of similar analysis

For more information request • Booklet —ABC's of Welding High Tensile Steels • Selector Chart 9501—Welding Trade Named Steels.

for "peace of mind" WELD WITH

ARCOS CORPORATION
1500 South Fiftieth St., Phila. 43, Pa.

ARCOS
Stainless, Low Hydrogen and Non-Ferrous Electrodes

For more details circle NED-6527 on enclosed inquiry slip

New Processes & Materials

RESIN ADHESIVE used to bond carbide to steel

Thermosetting resin adhesive can be used to bond carbide wear strips, bushing inserts and similar components to steel wherever excessive heat is not encountered. Available in red, off-white, black and aluminum gray, adhesives are combination of inorganic filling materials and thermosetting resins. Such rigid materials as glass, metals, fabrics, plastics, ceramics, wood and hard rubber can be bonded. Absence of volatile constituents permits use as gap-filling material and also permits immediate assembly after application of adhesive. Shear and tensile strengths over 2500 psi are realized. Made by **Armstrong Products Co.**, Secor St., Warsaw, Ind.

For more details circle NED-6528 on enclosed inquiry slip

RUSTPROOFING PROCESS is replacement for cadmium or zinc

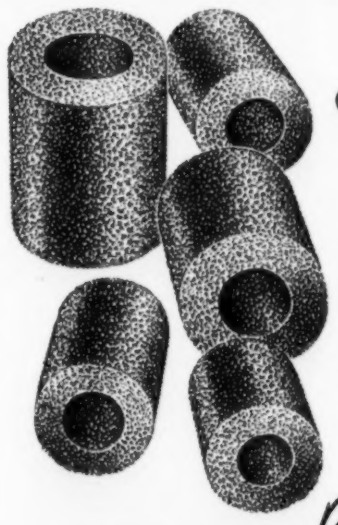
Recommended as replacement for cadmium or zinc in many rustproofing applications, Permcote phosphate coating material has been used successfully on such items as metal fasteners, springs, hardware, appliances and sheet metal parts. When immersed in solution, iron and steel surfaces are chemically converted into dark gray uniform nonmetallic coating. After rinsing, highly absorbent coating is impregnated with Perm-Oil to produce corrosion proof layer that is dry to the touch. Standard salt spray tests indicate resistance well in excess of 36 hours required in U. S. Army Specification 57-0-2c, Type II, Class B. Made by **Detrex Corp.**, P.O. Box 501-N, Detroit 32, Mich.

For more details circle NED-6529 on enclosed inquiry slip

PLASTIC TANK LINERS fabricated entirely of polyethylene

Fabricated entirely of polyethylene to customer's specifications, plastic tank liners can be furnished in wide variety of shapes and sizes with wall thicknesses up to 1 in. Liners can be fitted with drains and flows including pipe flanges, fittings and valves also of polyethylene; and these components can be directly connected to other existing pipe lines and installations. Chemical inertness of polyethylene and hot gas welding method employed in construction of tanks assure leakproof liner for use in storage and other tanks containing corrosive liquids. Fabrication of units can be done at manufacturer's plant or on site of installation. Made by **American Agile Corp.**, Plastics Div., Dept. E, 5806 Hough Ave., Cleveland 3, O.

For more details circle NED-6530 on enclosed inquiry slip



CHICAGO Internal Grinding WHEELS

Rapid Delivery

MANUFACTURED TO ORDER

Chicago Internal Grinding Wheels produce better finishes with longer wheel life and cutting action. They're your best buy—"tailor made" to your specifications and speedily delivered.

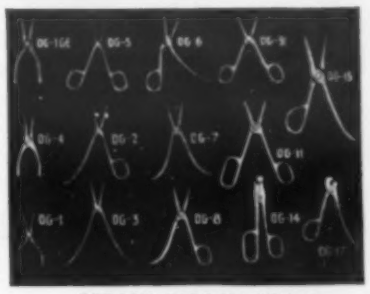
Advanced production methods assure you perfectly balanced Internal Wheels to meet rigid finishing requirements. Faster delivery . . . with overnight service for special jobs.

WRITE TODAY for full details on all Chicago Wheel products . . . and *free* sample Chicago Internal Grinding Wheel.

CHICAGO WHEEL & MFG. CO.
Dept. NED, 1101 West Monroe St.
Chicago 7, Illinois

For more details circle NED-6531 on enclosed inquiry slip

Equipment to Speed Your Defense Production!



OSBORN SAFETY PLIERS

Save fingers, eyes and dies with Osborn Safety Pliers . . . made of Osmolloy, the sturdy, long lived aluminum alloy that will flatten under impact, leaving dies undamaged. Thousands now in use. Write for literature!

OSBORN FORGING TONGS

Here is new ease in handling drop forgings. Aluminum construction cuts tong weight over 40%. Chrominum-nickel replaceable jaw inserts makes them heat resistant. Workers can handle more forgings with less effort.

OSBORN CABLE SADDLES

The perfect support for overhead cables and water cooling hose leading to portable resistence-welding guns. Lightweight alumimum construction. Kink-proof. Takes cable bundle 2½" in diameter. Clevis clearance is 3½".

OSBORN MFG. CO., Inc.
Making Jobs Safer and Easier
WARSAW ✶ INDIANA

For more details circle NED-6532 on enclosed inquiry slip

JOHNSON Electric Motor Bearings

EVERY Johnson EM Bearing is ready to install—machine finished inside diameter, outside diameter and ends. Flanges, oil holes, oil grooves, slots and tolerances are correct for every make of motor. Johnson EM Bearings are cast in SAE 67 Bronze, the right alloy for long, troublefree performance. Bearings for all makes are stocked by distributors and Johnson warehouses.

WRITE TODAY FOR CATALOG

SLEEVE BEARING HEADQUARTERS Since 1901

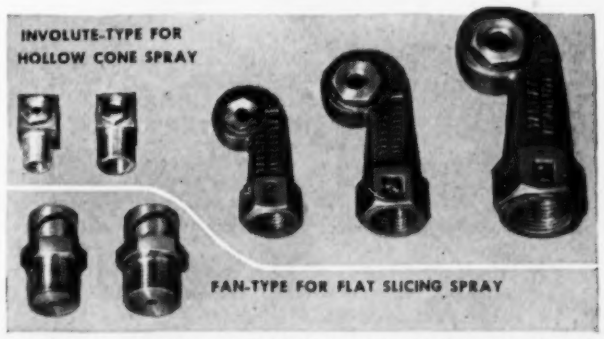
Johnson Bronze
580 SOUTH MILL STREET • NEW CASTLE, PA.

For more details circle NED-6533 on enclosed inquiry slip

for • SPRAYING • WASHING • RINSING • COOLING • AIR CONDITIONING

Get the most out of your Spraying Equipment with minimum power . . . with efficient spraying.
Use Yarway Nozzles. No internal vanes or other restrictions to clog or hinder flow.
Wide range of standard sizes and capacities. Cast or machined from solid bar stock.
Thousands in use. Write for Bulletin N-616.

YARWAY
SPRAY NOZZLES
YARNALL-WARING COMPANY
131 Mermaid Avenue, Philadelphia 18, Pa.



For more details circle NED-6534 on enclosed inquiry slip

NEW TYPE EASTERN "A" STANDARD

The most effective warning sign for work areas. Wide base red angle-iron frame won't blow over. Yellow free-swinging sign, black lettering on both sides. Choice of eight standard legends, also reflectorized.

Portable unit stands 27-in. high by 18½-in. wide; folds and locks 18-in. x 18-in. sign in place; flags removable; weighs only 13 lbs.

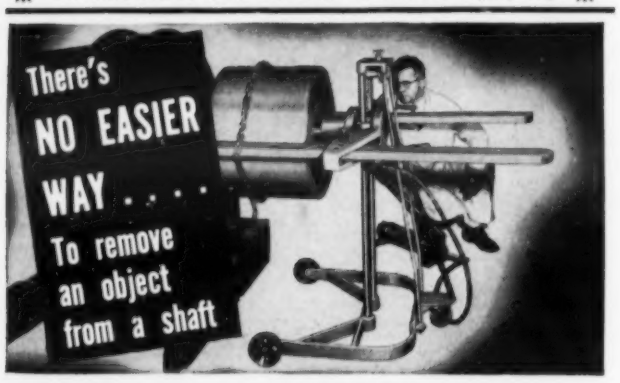
DANGER 440 VOLTS
SAFETY FIRST WEAR YOUR GOGGLES
OFFICE
FIRE HOSE
CAUTION NO CLEARANCE

Eastern Metal also makes general industrial and safety signs, shown at left — all official designs as specified by **American Standards Association** — new legible lettering, heavy-gauge steel, flexible baked enamel. Prompt delivery, economical price. Send for **illustrated folder and price list.**

INDUSTRIAL • SAFETY EM SIGNS UTILITY • TRAFFIC

EASTERN METAL of Elmira, Inc., Elmira Heights 2, N. Y.

▲ For more details circle **NED-6535** on enclosed inquiry slip ▲



The New, Improved Hydraulic

PULLEY PULLER

Enables one man to remove a pulley, gear, pinion, or other object from a shaft in minutes! No crow bars, sledges, or blow torches. No damage. Puller is adjustable, easily moved, rugged. Hundreds now in use in industry.

5-ton size **$62.50** ★ 20-ton size **$290.00** ★ 50-ton size **$655.00** (F.O.B. Factory)

Write for complete information — Catalog C

INDUSTRIAL ENGINEERING EQUIPMENT CO.
122-124 E. 4th St. Davenport, Iowa

▲ For more details circle **NED-6536** on enclosed inquiry slip ▲

NEW and MOST POWERFUL

ROTARY ELECTRIC IMPACTOOL

SIZE 34-U for 1¼" bolts

Weight—32½ lbs.
Height—10⅝"
1" square driver
110-volt AC-DC

— *makes the toughest jobs easy.*
— *sold by leading automotive jobbers and distributors.*

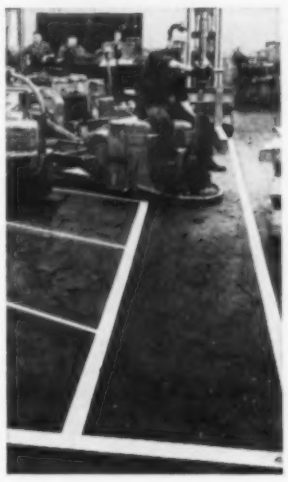
Ingersoll-Rand
11 Broadway, New York 4, N. Y.

623-18

▲ For more details circle **NED-6537** on enclosed inquiry slip ▲

New Processes & Materials

FLOOR MARKING TAPE
resistant to wear and chemicals



Made in red, yellow, white, orange, blue, green, brown and black, Scotch plastic film tape No. 471 can be used for marking trucking lane and safety areas, yet allows these areas to be altered without leaving traces of former stripe. Four-mil thick tape is resistant to acids, alkalies, water, alcohol, gasoline and kerosene. Pressure sensitive, it grips upon contact and can be applied by plant maintenance men. It is available in 2, 3 and 4-in. widths in 36 yd rolls. Made by **Minnesota Mining & Mfg. Co.**, Dept. NED, 900 Fauquier St., St. Paul 6, Minn.

▲ For more details circle **NED-6538** on enclosed inquiry slip ▲

HAND SOAP
for washroom dispensers

Suitable for use in washroom dispensers or packaged in handy containers, Sopec is an industrial powdered hand soap and grease remover. Capable of combating industrial dermatitis, powder is also hygienically safe, nonabrasive and fast acting. It is furnished in 6 oz containers, 5 lb fiber packages and 170 lb fiber drums. Made by **Speco, Inc.**, Dept. RSA, 7308 Associate Ave., Cleveland 9, O.

▲ For more details circle **NED-6539** on enclosed inquiry slip ▲

ADHESIVE-BACKED FELT
offered in tape and sheet form

Reinforced felt tape and sheeting with pressure-sensitive adhesive back is usable for rattle and squeak deadening; sealing against dust, wind, fumes and foreign materials; as thermal insulator and as vibration and shock cushioning in fragile crating and on machinery. Called Kling Felt, it is available in rolls from ¼ to 66 in. wide and in following thicknesses: 1/64, 1/32, 1/16 (100 ft long), ⅛ (50 ft long) and ¼-in. (25 ft long). It is also available as gaskets, cut to specifications. Made by **Products Research Co.**, 5426 San Fernando Rd., Glendale 3, Calif.

▲ For more details circle **NED-6540** on enclosed inquiry slip ▲

Chem-Board Tote Boxes

HELP BUILD AIRCRAFT

Many plants building the planes needed to make the nation strong keep materials, parts and sub-assemblies flowing to production lines in thousands of Convoy Chem-Board Tote Boxes. The nesting boxes illustrated are stored in minimum space while awaiting new loads.

Chem-Board is made of corrugated fibre-board, chemically impregnated by Convoy's exclusive process. It is flint hard and rock strong. It is not weakened by moisture. It is impervious to machine oils. Convoy Tote Boxes cost and weigh 50% to 60% less than steel.

The lightness, toughness and economy of Chem-Board Tote Boxes are unmatched. Tell us the style you use . . . we'll send a free production sample from the next run for you to test. As a guide for present and future availability, our current production capacity is reserved for the unprecedented demands from old customers and "DO" orders. Orders rated DO-97 are acceptable. Write today.

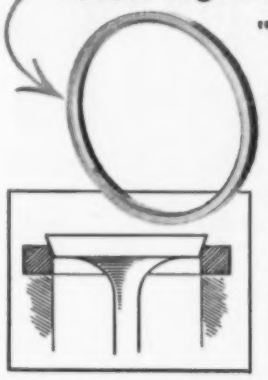
Standard and Custom-made Nesting — Stacking — Vertical CHEM-BOARD TOTE BOXES

CONVOY, INC.
P.O. Station B, Box 216-N
CANTON 6, OHIO

▲ For more details circle **NED-6541** on enclosed inquiry slip ▲

Reduce Engine Maintenance With...

"HAYNES STELLITE" ALLOY Trade-Mark **VALVE SEAT INSERTS**



Over 170,000 miles of trouble-free service are usually given by HAYNES STELLITE alloy valve seat inserts in diesel engines for buses and trucks. In gasoline engines, too, these alloy seats have phenomenal life between valve grinds.

The reason HAYNES STELLITE alloy valve seat inserts give such superior service is that they are made of a hard (Rockwell C51-54), cobalt-base alloy. The seats have excellent resistance to heat, corrosion, and erosion. They provide a tight valve fit long after ordinary seats have to be reground to prevent loss of power and waste of fuel.

For further information about HAYNES STELLITE alloy valve seat inserts and for prices, get in touch with our general offices in Kokomo, Indiana.

Haynes Stellite Company
A Division of Union Carbide and Carbon Corporation
UCC
General Offices and Plant: Kokomo, Indiana

"Haynes Stellite" is a trade-mark of Union Carbide and Carbon Corporation.

▲ For more details circle **NED-6542** on enclosed inquiry slip ▲

Norgren **MICRO-FOG LUBRICATORS**

RELY ON ACE PRECISION NYLON BALLS FOR EXACT CONTROL

C. A. Norgren Co., Denver, Colorado, uses Ace Nylon Balls as feed tube checks in Micro-Fog Lubricators to provide instant oil flow.

Hundreds of Industrial Applications! Let our engineers advise you.

SIZES ⅛"–¾"
TOLERANCES ±.001

Ace Nylon Balls of DuPont Nylon FM #10001 are mass produced to close tolerances giving you the advantages of toughness at low temperatures, form stability at high temperatures, light weight, dependable chemical and abrasion resistance.

Request samples and bulletin TODAY.

ACE PLASTIC COMPANY
Precision Plastic Fabricators
91-28 Van Wyck Blvd. • Jamaica 2, N. Y.

▲ For more details circle **NED-6543** on enclosed inquiry slip ▲

CAN YOU USE 60,000 lbs. THRUST in a *Portable Package?*

IT'S THE NEW MANCO HYDRAULIC GUILLOTINE

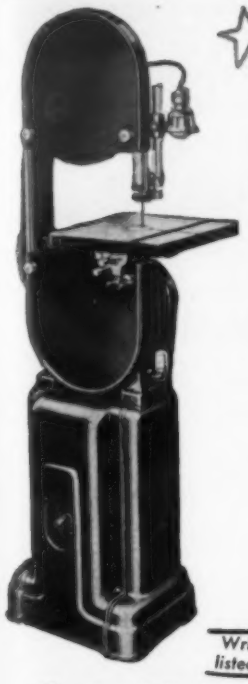
- **CUTS ROD, CHAIN, WIRE**
- **PUNCHES RIVETS, SWEDGES AND WHAT HAVE YOU?**

Here is one of the most versatile tools in industry. The Guillotine's tremendous power (30 tons thrust) is being utilized to cut 1" steel rod and chain, 1¾" wire rope, as well as 3½" power cable. Other model Guillotines are available for punching holes or test slugs in steel plates and sheets and for squeezing cold rivets up to ⅝". Fast . . . only 2½ seconds for the cutting cycle. Easy to operate, compact, requires virtually no maintenance. Available with a variety of pump units. Write today.

Dept. NE-8
MANCO MFG. CO., Bradley, Illinois

WRITE FOR ILLUSTRATED BULLETIN

▲ For more details circle **NED-6544** on enclosed inquiry slip ▲



☆ *Cuts everything!*

- CARBON TOOL STEEL
- PLASTICS • WOOD
- ASBESTOS • PAPER

Delta 14" BAND SAW

IDEAL FOR PLANT MAINTENANCE

- √ **Five cutting speeds—** four for metal, one for wood
- √ **Easy change from wood to metal** simply flip a lever
- √ **Gear drive for metal cutting** engineered for long and trouble-free service
- √ **Metal speeds** 125, 175, 250, 340 F.P.M.
- √ **Double trunnion table mounting—** massive table, 14 x 14

Write for catalog, or see your Delta dealer listed in Classified Phone Directory under "Tools"

There's a Delta Power Tool for Your Job- Wood or Metal Working

53 MACHINES — 246 MODELS — MORE THAN 1300 ACCESSORIES

DELTA MILWAUKEE — DELTA POWER TOOL DIVISION
Rockwell MANUFACTURING COMPANY
617H E. VIENNA AVENUE, MILWAUKEE 1, WISCONSIN

For more details circle NED-6545 on enclosed inquiry slip

RESPIRATORY PROTECTION

1 FACE PIECE— 7 CARTRIDGES
(Quickly Interchangeable)

Protect against Dusts, Gases and Vapors

WITH THE AO R2000 RESPIRATOR

When many hazardous vapors, gases or dusts are a problem, you can simplify protection and save money by standardizing on the AO R2000 Respirator. Single, basic face piece accommodates 4 chemical cartridges of NON-SPARKING metal and three dust cartridges which, while light in weight for comfort, have maximum filtering capacity. CARTRIDGES INTERCHANGE WITH A TWIST OF THE WRIST — one twist removes outer cover, a second replaces it. Respirator may also be used with chemically-treated disposable dust-filter. Your nearest AO Safety Products Representative can supply you.

American Optical COMPANY
SAFETY PRODUCTS DIVISION

Southbridge, Massachusetts • Branches in Principal Cities

For more details circle NED-6546 on enclosed inquiry slip

For Accurate Temperature Control in Military and Civilian Products . . .

USE KLIXON *Thermo-Snap* CONTROLS

The positive snap action of Klixon Thermo-Snap Controls provides a *quick, clean break* or a *fast, solid make* assuring dependable, accurate temperature control wherever used . . . and usually at a cost lower than general purpose controls.

Today, Klixon *Thermo-Snap* Controls are used in many military and civilian products ranging from tanks, airplanes, radio and electronic equipment, sterilizers and unit heaters to household electrical appliances, dairy heaters, etc. Applications include — low limit and high limit controls, fuel delay switches, purges switches, temperature controls, fan switches, tube and rectifier cooling control, etc.

Klixon *Thermo-Snap* Controls are available in many hermetically sealed and open types in a wide variety of operating temperature ranges. Our engineers will gladly help you with your problems. Write for information.

KLIXON — SPENCER THERMOSTAT
Division of Metals & Controls Corp.
1908 Forest St., Attleboro, Mass.

For more details circle NED-6547 on enclosed inquiry slip

New Literature and Catalogs

Water Treatment

Brooks Chemicals, Inc.—Boiler water, water line, cooling water system, brine system, waste water and zeolite softener treatments as well as consulting service are described in 16-page illustrated bulletin No. 501. Included is study of ten impurities common in water, the damage they cause and how to combat them.

For more details circle NED-6548 on enclosed inquiry slip

Fluorescent Lighting Fixtures

Wheeler Reflector Co.—Illustrated bulletin deals with Industri-Line slimline fluorescent lighting fixtures. Features and improvements include increased light per foot of lamp length, instant starting, elimination of starters and turret depressable type lamp holders which hold lamps securely in place.

For more details circle NED-6549 on enclosed inquiry slip

Hydraulic Presses

American Steel Foundries, Elmes Engineering Div.—12-page illustrated bulletin 1010-B explains applications and operation of hydraulic metalworking presses. Electric control offers semiautomatic or automatic operation and inching, with speed change and reversal of slide governed either by ram travel or pressure.

For more details circle NED-6550 on enclosed inquiry slip

Snow Melting Systems

A. M. Byers Co.—36-page illustrated bulletin "Byers Wrought Iron for Snow Melting Systems" contains case studies of 50 installations in all types of industries for speedy removal of snow from such areas as sidewalks, driveways and loading platforms. Engineering data are included on design, installation and applications of snow removal systems.

For more details circle NED-6551 on enclosed inquiry slip

Special Round Casting Service

Pyott Foundry & Machine Co.—Specialized service offer by company for production of round castings in diameter range of 2 to 144 in. from available patterns is described in 6-page illustrated folder "Pyott Saves Time, Cuts Costs." Typical pulleys, flywheels, sheaves, gear blanks and similar castings are shown.

For more details circle NED-6552 on enclosed inquiry slip

Spring Pipe Hangers

Bergen Genspring Corp.—16-page illustrated catalog No. 501 shows how Variable-Support pipe hangers support piping and allied equipment subjected to positional changes resulting from thermal expansion. Hanger sizes are available to handle rated loads from 80 to 5418 lb.

For more details circle NED-6553 on enclosed inquiry slip

Motor Controls

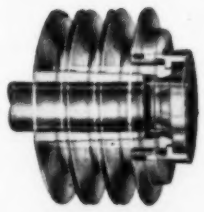
Allen-Bradley Co.—92-page illustrated "Handy Catalog of Motor Controls" gives technical data, application information, dimensions and prices of complete line of alternating and direct current motor controls.

For more details circle NED-6554 on enclosed inquiry slip

Only AMERICAN WEDGBELT® SHEAVES give you the advantages of TAPER-BUSHED HUBS

on both Multiple-Groove Fixed-Pitch Sheaves

and



Multiple-Groove Adjustable-Diameter Sheaves.

Only American Wedgbelt Sheaves give you the advantages of *quicker assembly, easier breakaway yet maximum clamping action in both fixed-pitch and adjustable-diameter* multiple-groove sheaves. Assembly is quicker because of one-piece, accurately-machined bushings—breakaway is easier because of the exclusive "perfected taper" of American Wedgbelt bushings—maximum clamping action is assured because the bushings are *split all the way* through. In addition, precision manufacturing assures accurate, long-wearing grooves and balanced, vibration-free operation. Look to American as your source of supply for *all* V-belt drive products: Taper-bushed Standard Wedgbelt Sheaves, Double-Taper Adjustable-Diameter Wedgbelt Sheaves, F.H.P. Sheaves and F.H.P. and Multiple Wedgbelts. Mail the coupon below for full information on the complete line of American Wedgbelt Drives.

The American Pulley Company 4296 Wissahickon Ave., Phila. 29, Pa.
Please send me information on American Wedgbelt Drives.
NAME_____ TITLE_____
COMPANY_____
ADDRESS_____
CITY_____ ZONE_____ STATE_____

For more details circle NED-6555 on enclosed inquiry slip

CRAMPED QUARTERS CAN'T SLOW DOWN
LYON-*Raymond*
***Hydraulic* Pallet Lift Trucks**

Don't let cramped areas slow your handling down—install LYON-Raymond Hydraulic Pallet Lift Trucks and see the difference! These trucks move unit loads through with ease because they're so compact, so maneuverable too. Furnished in hand models or rider-type electric-powered models — send for full details today.

LIGHTWEIGHT MODEL (illustrated) Streamlined for speedy handling of light unit loads. Capacity: 2000 lbs.

HEAVY-DUTY MODEL (similar to photo) Ruggedly-built for heavy-weight unit load handling. In 4000 lb. or 6000 lb. capacities.

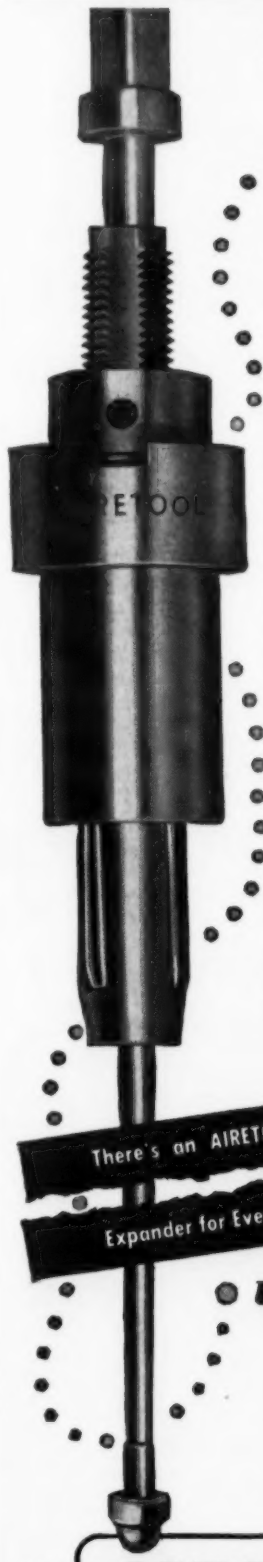
ELECTRIC TIERING MODEL (Rider-type) Amazing new Space-Maker—so short, so maneuverable it actually right-angle tiers 4-ft. pallets up to 130 inches high in aisles only 6-ft. wide! Capacity 2000 lbs.

Send for Descriptive Bulletin

LYON-*Raymond* Corporation
Skid and Pallet Lifts • Hydraulic Elevating Equipment
Electric Power Trucks • Positioning • Sheet & Die Handling

4137 Madison St., Greene, N. Y.

For more details circle NED-6556 on enclosed inquiry slip



roll 'em FAST
roll 'em RIGHT

with AIRETOOL ball-bearing tube expanders

The stepped-up demands of industry put production equipment at a premium. Down-time reduces production. By providing better tube maintenance, AIRETOOL tube cleaners and expanders cut down-time to the bone.

The AIRETOOL ball-bearing type expanders (illustrated) roll those small tubes in your heat transfer equipment to a "T." They are accurate, safe and easy to operate. Features include tapered, bevel-nosed rolls to produce smooth unridged surfaces, a ball-bearing thrust to minimize friction. Separate ground raceways reduce bearing breakage. Wait no longer to cash in on its many benefits.

There's an AIRETOOL Tube Cleaner and Tube Expander for Every Type of Tubular Construction

write for help

Details on this amazing expander and other AIRETOOL tube maintenance equipment specially designed for the processing industry will be gladly furnished on request Write The Airetool Mfg. Co., 308 S. Center Street, Springfield, Ohio.

AIRETOOL
MANUFACTURING COMPANY
SPRINGFIELD, OHIO

BRANCH OFFICES: New York, Philadelphia, Chicago, Tulsa, Baton Rouge, Houston

Representatives in Principal Cities

For more details circle NED-6557 on enclosed inquiry slip

Stop costly shut-downs and heavy repair bills caused by dirt, rust or scale carried in pipe lines to regulators, traps, pumps, meters, burners, etc.

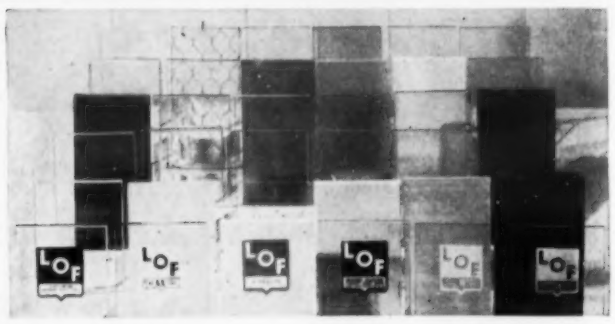
USE Sarco strainers also to remove impurities from any fluid end product.

Sizes 1/4" to 8", for any commercial pressure.

Write for new Bulletin 1202 514

SARCO SAVES STEAM — SARCO COMPANY, INC. Empire State Bldg., New York 1, N.Y. SARCO CANADA, LTD., TORONTO 5, ONTARIO

For more details circle **NED-6562** on enclosed inquiry slip



117 Answers to "Special" Design Problems

Visibility, obscurity, greater safety, color, light, insulation, beauty—no matter what your design problem, you should be able to find just the answer you're looking for in Libbey·Owens·Ford flat glass. We've developed over 117 types, colors and thicknesses to meet a wide range of uses. Included are such special purpose products as Safety Glass, *Thermopane** insulating glass, *Tuf-flex** heat- and shock-resistant glass, heat absorbing glass and *Vitrolite** opaque colored glass. Specifications on each of these–and many others–are included in Bulletin SPD-51. *®

Write for your copy of this valuable booklet.

LOF GLASS — LIBBEY·OWENS·FORD GLASS COMPANY
8781 NICHOLAS BLDG.
TOLEDO 3, OHIO

For more details circle **NED-6563** on enclosed inquiry slip

CROWN FACED
SOLID STEEL PULLEYS
PRECISION MACHINED
COMPLETE WITH SHAFTS
NOW AT NEW LOW PRICES!

THESE pulleys are "born of necessity". Making quality conveyors, we didn't like the performance of the common welded steel pulley. The light gauge construction, bending and denting of the edges, and the eccentricity and unbalance after the shaft was inserted, just wouldn't do. The result is the development of standardized solid steel, precision machined, crown faced pulleys, complete with shaft at astonishing low prices. Why not try them on your equipment.

AVAILABLE FROM STOCK!

These pulleys are machined from 1/4" wall steel tubing after the shafts have been assembled, thus producing a strong and true running pulley. Best of all, they're low-priced!

FREE! MAIL FOR DATA SHEET AND PRICES

ISLAND EQUIPMENT CORP. Dept. NE8
27-01 Bridge Plaza North
Long Island City 1, N. Y.
Please send Bulletin CP-1 on Crown Faced Solid Steel Pulleys.

NAME _____
ADDRESS _____
CITY _____ STATE _____

For more details circle **NED-6564** on enclosed inquiry slip

New Literature—Continued

Metal Cleaning Process

Phillips Mfg. Co.—Answers to most problems involved in vapor degreasing of metal parts are provided in 32-page illustrated question-and-answer type handbook "Engineered Metal Cleaning Equipment" for production men and engineers. Cleaning procedures, processes, equipment and types of products which can be handled are covered.

For more details circle **NED-6565** on enclosed inquiry slip

Packing Rings

Raybestos-Manhattan, Inc., Packing Div.—Details of R/M Vee-Flex packing rings are presented in 4-page illustrated bulletin. Made in five types, rings are recommended for use in valves, pumps, hydraulic cylinders, rams, presses and lifts. They are adaptable for wide range of services and pressures.

For more details circle **NED-6566** on enclosed inquiry slip

End Mills

Niles-Bement-Pond Co., Pratt & Whitney Div.—"End Mills for All Purposes" is 60-page manual which contains complete data on over 500 types and sizes of end mills and related tools. Information given includes terminology, tips and reference material on feeds, speeds, coolants, sharpening and inspection.

For more details circle **NED-6567** on enclosed inquiry slip

Oil Purifiers

Honan-Crane Corp.—Ways to effect savings in oil consumption as well as in equipment operation and maintenance in quenching, hydraulic and metalworking operations are explained in three illustrated bulletins. Descriptions are included on oil purification equipment and new magnetic filter for coolants and cutting oils.

For more details circle **NED-6568** on enclosed inquiry slip

Cutting Tool Holder

Ready Tool Co.—Various sizes and types of lathe, shaper, planer and other holders for carbide and high speed steel tool bits are tabulated in 8-page illustrated catalog. Also described are threading, forming and cutting spring tool holders; boring bar and internal threading tool holders; tool bits and blades. Details of Red-E Tap-A-Hammer and ball chains are included.

For more details circle **NED-6569** on enclosed inquiry slip

Ball Bearings

Miniature Precision Bearings, Inc.—Specifications on over 70 different types and sizes of miniature ball bearings are included in 12-page illustrated catalog 51b. Details of typical applications and diagrams of current installations in various fields are included.

For more details circle **NED-6570** on enclosed inquiry slip

Retaining Rings

Waldes Kohinoor, Inc.—Three illustrated bulletins cover all types of Truarc retaining rings, grouped by specific ring function. Bulletin 6 of 16 pages covers series of retaining rings developed to take up end-play and compensate for varying manufacturing tolerances and wear. Eight-page bulletin 7 covers external type rings applied radially without pliers. Bulletin 8, 20 pages, includes rings that form artificial shoulders for positioning and retaining machine parts on shafts or in housings.

For more details circle **NED-6571** on enclosed inquiry slip

Sure..... **Stainless Pipe is Tough to Get**

But..... **Here is a way to double the amount of pipe a mill can make from its supply of alloys**

Light weight *Schedule 5* Stainless Pipe provides more feet of material from every pound of critical alloy. And *Schedule 5* pipe hooks up to existing lines of heavier pipe. The large inside diameter of *Schedule 5* pipe (standard pipe size O.D.) gives increased flow area. And the cost of this light weight Stainless Pipe is much lower than the cost of heavier pipe.

For the complete story about *Schedule 5* and the jobs it can do, return the coupon for a set of these Data Sheets.

THE CARPENTER STEEL COMPANY
Alloy Tube Division, Union, N.J.

Please send me a set of the new Data Sheets describing light weight *Schedule 5* Stainless Pipe.

NAME _____ TITLE _____
(Please Print)
COMPANY _____
ADDRESS _____
CITY _____ ZONE _____ STATE _____

For more details circle **NED-6572** on enclosed inquiry slip

CONTROL POWER BETTER

ROCKFORD CLUTCHES

For more details circle **NED-6573** on enclosed inquiry slip

THE **spring** IS THE THING

AJAX
SPIRAL WOUND GASKETS

The Gaskets with resilience "built-in," to make positive, lasting seals. Made for all types of pipe flanges, pressure vessels, and for boiler manholes, handholes, tube caps, water walls, economizers and other boiler accessories. A trial will end your gasket troubles.

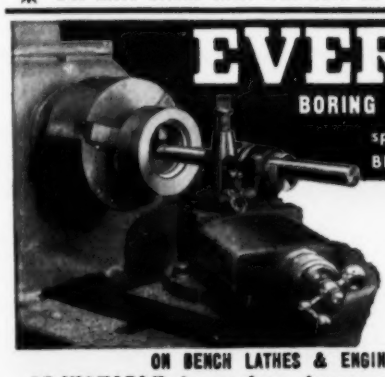
OTHER STANDARD INDUSTRIAL GASKETS

In addition, we offer a complete line of corrugated metal and metal-asbestos gaskets; solid metal, serrated and profile types. Sold universally through Industrial Distributors. Ask your Supply House or write

UNITED STATES GASKET CO.
654 N. 10th Street Camden 1, N. J.

Leading Fabricators of "TEFLON" for the Chemical, Process and Electronic Industries.

For more details circle **NED-6574** on enclosed inquiry slip



EVEREDE
BORING BAR TOOL HOLDERS
speed up Precision boring BECAUSE . . .

GREATER . . .
UTILITY
FLEXIBILITY
VERSATILITY

ON BENCH LATHES & ENGINE LATHES
ADJUSTABLE to various types and sizes of LATHES

. . . made possible by EveredE adjustment of center-height of boring bars. Makes these holders step up precision boring production at important savings in expanded capacity, wider use of critical existing equipment and man-power. That's why EveredE Boring Bar Holders are gaining evermore prominence in leading production plants. Start getting EveredE benefits today . . . send for complete details.

1 — **NO. 1 BENCH LATHE TOOL HOLDER:** Fits lathes from 7 through 9 in. swing. Uses bars with 3/8" shanks. Used exclusively on precision bench lathes.

2 — **NO. 2 ENGINE LATHE TOOL HOLDER:** Fits engine lathes from 8 through 12 in. swing. Max. bar Cap. 3/4" diam. Height of holder, lowest 1-1/6"; highest, 1 3/4".

3 — **NO. 3 ENGINE LATHE TOOL HOLDER:** Fits lathes from 12 through 24 in. Max. bar Cap. 1" diam. Height of holder, lowest, 1 1/2"; highest, 2 3/8".

★ EVER-HORIZONTAL POSITIONING. Regardless of lathe size. (Within negligible limits.)

★ EVER-RIGID and DURABLE . . . Made of casehardened alloy steel.

★ EVER-HANDY TOOL POST BLOCK . . . secured by chain to holder.

(NOTE: "Height of Holder" is distance from bottom of holder to center of lathe.)

LARGER BARRELS: furnished for No. 3 Holder accommodating bar sizes from 1 1/8" through 1 1/2"

EVEREDE Tool Co.
2000 North Parkside Avenue Chicago 39, Illinois

For more details circle **NED-6575** on enclosed inquiry slip

DAV-SON CORK-BACKED BULLETIN BOARDS

DAV-SON indoor and outdoor style Bulletin Boards provide attractive displays for up-to-the-minute announcements and posters. Your choice of hardwood or metal frames, with or without locking glass doors, illuminated or non-illuminated.

"THE SAFETY DIRECTOR"

Flashing display is a constant warning to employees to avoid accidents. Changeable letters permit timely safety messages to be set up as often as required. Definite improvement in safety records has been noted in plants using "The Safety Director."

Write for complete information regarding DAV-SON — Cork Bulletin Boards and Directories and the famous "Safety Director."

DAV-SON

Ask for Bulletin "A"

A. C. DAVENPORT & SON, INC.
ESTABLISHED 1932
311 N. DESPLAINES ST., CHICAGO 6, ILL.

For more details circle NED-6576 on enclosed inquiry slip

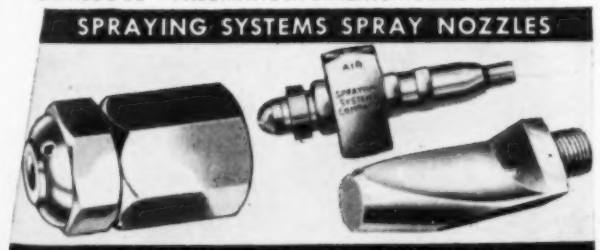
IF YOU USE SPRAY NOZZLES HAVE THESE FACTS

BEFORE YOU!

the internal design and capacity of the spray nozzles used in a spraying operation often determine the cost and quality of that operation. See for yourself why Spraying Systems spray nozzles are the SPECIFIED nozzles of industry today. Write for Catalog 22 . . . the facts are all there.

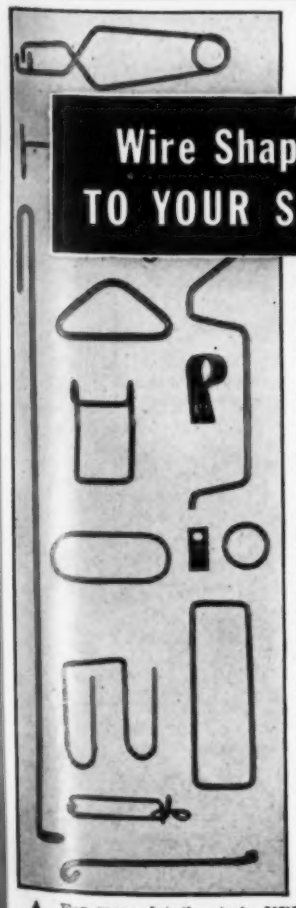
SPRAYING SYSTEMS CO.
3211 RANDOLPH STREET • BELLWOOD ILLINOIS
WRITE FOR CATALOG 22 • GENERAL CATALOG
CATALOG 23 • PNEUMATIC ATOMIZING NOZZLE CATALOG

SPRAYING SYSTEMS SPRAY NOZZLES



the SPECIFIED nozzles for industrial use

For more details circle NED-6577 on enclosed inquiry slip



Wire Shapes and Forms TO YOUR SPECIFICATIONS

● Your wire forms are produced fast, accurately and at low cost with Sommer mass-production methods.

Speedy, automatic plating equipment handles either large or small assemblies. Popular new Zinc Iridite process adds a bright, durable, economical finish.

Sommer offers complete forming, stamping, cut-threading and butt-welding services. Let us work with you in designing and producing any wire shapes or forms needed for your defense contracts. Send sample, blueprint or drawing—see how Sommer can save you time and money.

SOMMER METALCRAFT CORPORATION
(Formerly JESCHKE Wire and Specialty Company)
200 POSTON DRIVE
CRAWFORDSVILLE, INDIANA

For more details circle NED-6578 on enclosed inquiry slip

New Literature—Continued

Torquemeters

Baldwin-Lima-Hamilton Corp.—8-page bulletin 328 describes and illustrates SR-4 torquemeters, based on measurement with special SR-4 resistance wire strain gages. Dimensional tables and tables for instrument characteristics and standard graduations for instruments ranging from 100 to 30,000 lb.-in. are included.

For more details circle NED-6579 on enclosed inquiry slip

Slurry-Handling Pumps

Allen-Sherman-Hoff Co.—16-page illustrated catalog 451 diagrammatically shows features of Hydroseal pumps for handling water or other liquids containing abrasive materials. Clear liquid is always flowing into volute and suction eye of impeller, keeping abrasive-laden liquid from wearing pump parts.

For more details circle NED-6580 on enclosed inquiry slip

Standard & Modified Valves

Ross Operating Valve Co.—Detailed descriptions, sectional views, installation data and diagrams are given for straightway, three-way, four-way and four-way five-port valves in 44-page catalog. Various sizes of hand, foot, solenoid, pilot, remote control, cam, speed control, shut-off, quick exhaust and miscellaneous valves are covered.

For more details circle NED-6581 on enclosed inquiry slip

Oilers & Oiling

Eagle Mfg. Co.—Development of oiler since earliest known origin is traced and its development through many old patents up to modern oiler is shown in interesting 16-page illustrated booklet "Helping To Make the World Run Smoother". Practical information on types of oilers, their applications and kinds of oils to use for various purposes are covered.

For more details circle NED-6582 on enclosed inquiry slip

Thread Inserts

Heli-Coil Corp.—Design data on helical-wire thread inserts and their use in protection and repair of tapped holes in aluminum, magnesium, plastics, iron, steel and wood are covered in 16-page illustrated bulletin No. 650-R. Tabular information includes recommended drill sizes, roughing and finishing-tap specifications and thread gages to be used when installing various types and sizes of inserts.

For more details circle NED-6583 on enclosed inquiry slip

Nozzles, Welding Necks & Flanges

Taylor Forge & Pipe Works—72-page illustrated catalog No. 501 describes various types of nozzles, welding necks and large diameter flanges. Included are data covering standards of Tubular Equipment Manufacturer's Association and publication designated "Modern Flange Design".

For more details circle NED-6584 on enclosed inquiry slip

Hose Clamps & Fittings

Punch-Lok Co.-12-page illustrated catalog 300 describes Punch-Lok method and lists data on hose clamps, locking tools and special clamping devices. In addition to making leakproof hose connections, units are available for such uses as splicing electric cable, repairing pipeline leaks, clamping guy wire guards and mending posts, crossarms, beams and planks.

For more details circle NED-6585 on enclosed inquiry slip

SIMPLE LOW-COST BIN-FLO AERATOR UNITS KEEP BULK MATERIALS MOVING

Finely ground dry materials in storage often lose air content and pack or bridge, thus losing capacity to flow.

BIN-FLO units diffuse low-pressure air through such materials, preventing packing and maintaining or restoring natural flow.

Easily installed in chutes, bins, hoppers, etc. Can be automatically controlled by BIN-DICATOR bin level indicators. Low first cost; low operating cost. Used in many industries. Fully guaranteed. Send for folder.

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For more details circle NED-6586 on enclosed inquiry slip

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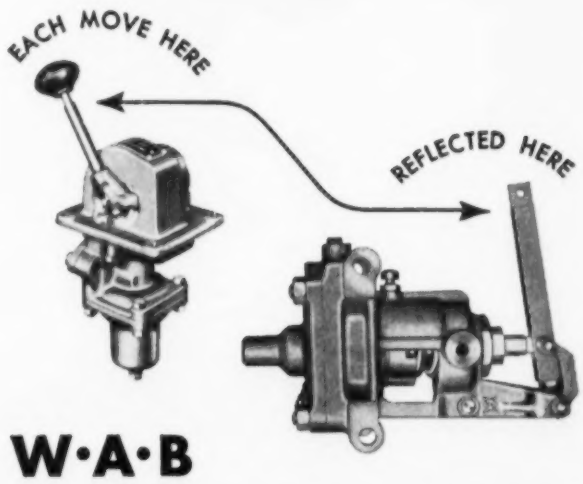

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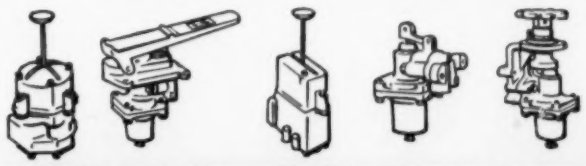
The smallest move of the control-valve handle is "echoed" by proportional movement of the actuator to throttle engines, graduate flow in process operations, positioning actuator to modulate fuel feed to boilers, etc. Eliminates complication and maintenance of mechanical linkage. Only connection is an air tube. Place controls at any distance from operation, centralize command of multiple operations. Hand, foot and cam operated valves available. Ask for Bulletin IDA 9481-1.



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Factory Branch: Emeryville, Calif.
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Here's an easy, inexpensive way to step up boiler efficiency in industrial heating plants. With a General Fuel Oil Pre-heater, you get better atomization, more complete combustion.
Fuel oil passes through shell and over tubing. Easily cleaned. Oil thoroughly mixed by baffles. Seamless tubes are heated with live steam, exhaust steam or boiler water. Available in ten sizes for any flow up to 3825 gallons of fuel per hour. Pressures to 125 psi. For information, write General Fittings Co., Dept. I, 123 Georgia Ave., Providence 1, R. I.

GF GENERAL
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NOELTING Faultless ENGINEERED TRUCK CASTERS CUT HANDLING COSTS

NEW! MEDIUM DUTY INDUSTRIAL CASTER
Cuts Handling Time —Saves Man-Hours

900 Series Double Ball Bearing Swivel Plate Caster with Vulcanized Rubber Tread Wheel

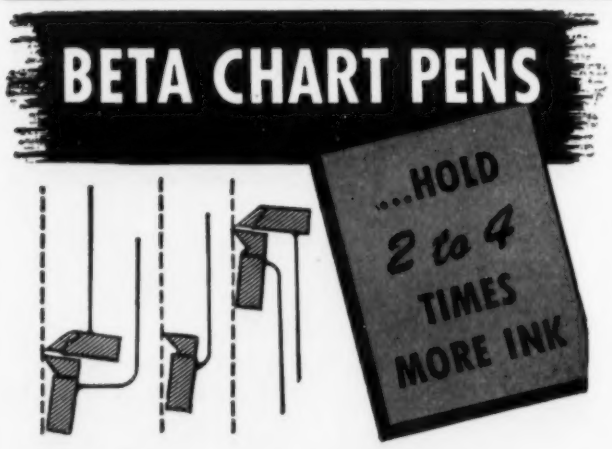
The 900 Series, all purpose, Truck Caster has heavy pressed steel horn and top plate, corrugated for extra strength. Swivels easily on *two* full rows of hardened balls rolling around *two* separate raceways. Choice of six kinds or wheels to suit load (*175 lb. to 550 lb.*) and floor surface conditions.

All the engineering "know-how" from *over half a century of specialized experience* is yours in Faultless Industrial Casters—to speed production lines, trucks, portable equipment . . . with *less time, noise, effort.* Ask for Cat. 156, no obligation.

FAULTLESS CASTER CORPORATION
Dept.NE-11, Evansville 7, Indiana
Branches in Principal Cities—Canada Factory: Stratford, Ont.

For more details circle NED-6590 on enclosed inquiry slip

BETA CHART PENS



Beta Fountain Pens hold two to four times the ink of ordinary chart inking pens. Regardless of the line thickness Beta Pens produce a smooth unbroken and uniform line. Pens shown are approximately actual size and can be arranged to reduce time interval between static and differential lines to only a few minutes. Beta Pens are especially suitable for seven day records. Price $1.10 (lower prices in quantities).

Send for bulletin No. 110.

AMERICAN RECORDING CHART CO.
3113 E. 11th St. • Los Angeles 23, Calif.

Available for Early Delivery

For more details circle NED-6591 on enclosed inquiry slip

New Literature—Continued

Industrial Rolling Doors

Kinnear Mfg. Co.—32-page 1951 catalog of rolling doors describes complete line which includes steel rolling service, Underwriters' labeled fire, Bifold, Rol-Top sectional overhead and special doors; steel rolling grilles and fire shutters. Details of wood rolling door which conserves steel are presented in 4-page illustrated bulletin 37-A.

For more details circle NED-6592 on enclosed inquiry slip

Metal Powders, Pigments & Abrasives

Metals Disintegrating Co.—16-page illustrated booklet deals with types of metal powders, metal pigments and metal abrasives produced and their applications by industry. Plant facilities available for defense needs in above field are described. Announced is resumption of manufacture of iron powder, and typical uses of this material are outlined.

For more details circle NED-6593 on enclosed inquiry slip

Bearing Engineering

"Ball and Roller Bearing Engineering" is title of 270-page manual for engineers, designers and maintenance men who deal with antifriction bearings. This revised edition covers in technical detail such subjects as bearing types and nomenclature, capacities, selection, design, installation, causes of failures and load calculations. Price is $1.75. Published by SKF Industries, Inc., Front St. & Erie Ave., Philadelphia 32, Pa.

For more details circle NED-6594 on enclosed inquiry slip

Pipe Welding Fittings

Tri-Clover Machine Co.—Schedule 5 and 10 IPS size stainless steel welding fittings for light-gage pipe are detailed in 16-page illustrated catalog 1051. Fittings adapt light-gage steel pipe for all types of corrosion resistant service.

For more details circle NED-6595 on enclosed inquiry slip

Refractories & Thermal Insulations

Refractory & Insulation Corp.—40-page illustrated catalog "Refractories and Insulations" shows where, when and how to use various types of materials in industrial heat processing and heat generating equipment. Physical data, characteristics and application procedures are given for each refractory and insulation product.

For more details circle NED-6596 on enclosed inquiry slip

Fixed Resistors

International Resistance Co.—12-page illustrated bulletin B-1 offers comprehensive data on characteristics and specifications of advanced type BT fixed composition resistors with ⅓, ½, 1 and 2-w commercial ratings. Given are temperature characteristics, voltage coefficient, and humidity, load life and frequency ratings.

For more details circle NED-6597 on enclosed inquiry slip

Crushers

Allis-Chalmers Mfg. Co.—Hydrocone hydraulically adjusted crushers for ore and stone are subject of 32-page illustrated bulletin 07B7145B. Offered in cone sizes from 22 to 84 in. with coarse, intermediate or fine crushing chambers, machines meet all production requirements.

For more details circle NED-6598 on enclosed inquiry slip

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You can't buy a better folding chair than a Clarin, if you want a skillfully designed, sturdy chair with all the desired features of —
COMFORT - STABILITY
EASE OF HANDLING
RICH-LOOKING, LONG-LASTING FINISHES
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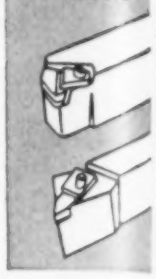

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MANUFACTURERS OF SUPERIOR CEMENTED CARBIDES AND CUTTING TOOLS THAT INCREASE PRODUCTIVITY

Send for Catalog 51

For more details circle NED-6600 on enclosed inquiry slip

SHELDON CHICAGO

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Judge it from any angle: for accuracy, stamina, rigidity or capacity (for size). Check its component parts—its spindle, spindle bearings, lead screw, apron, carriage, bed, gearing, or the power delivered by its drive—you will find the SHELDON Lathe a quality tool both in appearance and "under the hood".

Write for Catalog

SHELDON MACHINE CO., Inc., 4215 North Knox Ave., Chicago 41, Ill.

For more details circle NED-6601 on enclosed inquiry slip

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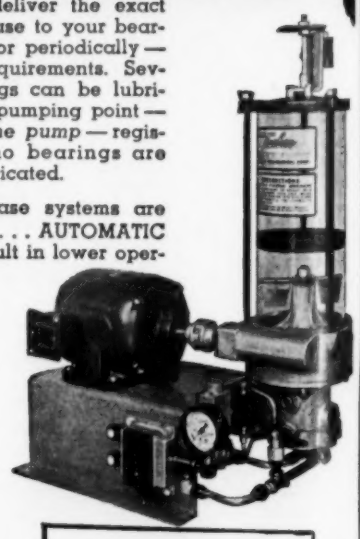
• Trabon systems deliver the exact amount of oil or grease to your bearings — continuously or periodically — according to your requirements. Several hundred bearings can be lubricated from a single pumping point — one indicator — *at the pump* — registering proof that no bearings are skipped or underlubricated.

Trabon oil and grease systems are SAFE . . . POSITIVE . . . AUTOMATIC . . . SEALED . . . result in lower operating costs, increased production and protection to men and machinery.

Backed by 20 years of experience in engineering and installing lubrication equipment, Trabon can save thousands of dollars for you. Write Trabon Engineering Corporation, 1814 East 40th Street, Cleveland 3, Ohio.



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5900	5950	6000	6050	6100	6150	6200	6250	6300	6350	6400	6450	6500	6550	6600	6650	6700	6750
5901	5951	6001	6051	6101	6151	6201	6251	6301	6351	6401	6451	6501	6551	6601	6651	6701	6751
5902	5952	6002	6052	6102	6152	6202	6252	6302	6352	6402	6452	6502	6552	6602	6652	6702	6752
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81

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COMPANY .....

ADDRESS .....

CITY ..... ZONE ..... STATE .....

Principal Products Manufactured .....

..... Approx. Number of Employees in Plant .....

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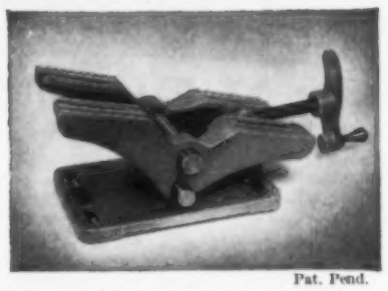

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Supreme Holder stamps multiple characters in hot or cold metal with one easy operation. Write for details of styles and sizes available.

OFFICES: Chicago Los Angeles Youngstown Philadelphia Jacksonville

THE PANNIER CORPORATION

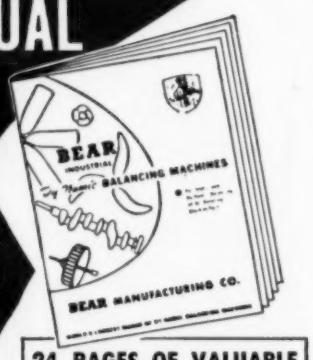
301 Pannier Building

Pittsburgh 12, Pa.

▲ For more details circle NED-6604 on enclosed inquiry slip ▲

FREE MANUAL

tells how DY-NAMIC BALANCING CAN IMPROVE YOUR DEFENSE PRODUCTION!



This New "Bear" Manual will show you how Dy-Namic Balancing can aid your defense production program these two ways:

1 Improve finished product performance by eliminating mechanical failures and assuring greater efficiency and longer life. Gives you the quality standards to help meet many government contract specifications.

2 Keep your own equipment operating without interruption. Periodic checking and Dy-Namic Balancing of rotating parts in your machinery and production equipment will reduce bearing wear and noise and eliminate costly downtime for repairs.

Write today for your free copy. Bear Mfg. Co., Dept. N-5, Rock Island, Illinois.

24 PAGES OF VALUABLE INFORMATION LIKE THIS:

- How To Balance Parts From 4 Oz. to 8 Tons!
- What Is Dy-Namic Un-balance?
- The Difference Between Static and Dy-Namic Un-balance!
- How To Balance Rotating Parts Statically and Dy-Namically In One Operation!
- How Other Plants Are Using Dy-Namic Balancing To Save Time and Money!
- How Dy-Namic Balancing Improves Product Performance!
- How Dy-Namic Balancing Reduces Wear, Eliminates Noise And Vibration.
- Details, Specifications And Engineering Data About Complete Line of "Bear" Industrial Dy-Namic Balancing Machines.

6477

"BEAR" STATIC AND DY-NAMIC BALANCING MACHINES

▲ For more details circle NED-6605 on enclosed inquiry slip ▲

New Literature—Continued

Roller Bearings

Shafer Bearing Corp.—566-page illustrated catalog No. 51 contains full information on line of pillow blocks; flange, flange cartridge, cartridge, duplex, take-up, and take-up and frame units; and unmounted roller bearings. Load capacities, self-alignment, ConCaVex design, seals and other features are outlined. Included are engineering and application data.

▲ For more details circle NED-6606 on enclosed inquiry slip ▲

Materials Handling

Whiting Corp.—"Quick Facts on Handling" is title of 16-page illustrated brochure which emphasizes factors which must be considered to approach handling problems effectively. Details of Trackmobile railroad car mover, Trambeam overhead handling systems, electric chain hoists, overhead and economy type cranes and other material handling equipment are presented.

▲ For more details circle NED-6607 on enclosed inquiry slip ▲

Blast Cleaning Machines

Pangborn Corp.—How the Hydro-Sand Blast unit uses powerful stream of mixed sand and water to solve core knockout and casting cleaning problems in foundries is explained in 12-page illustrated bulletin 1110. Use of equipment to clean heat exchanger tubes is described also. Capacities and operating details of machines are shown.

▲ For more details circle NED-6608 on enclosed inquiry slip ▲

Electronic Equipment

Newark Electric Co.—164-page illustrated catalog No. 51 is packed with information on radio, television and industrial electronic equipment and components. Data and prices are included on television, radio and sound equipment, electronic tubes, rectifiers, resistors, switches, relays, meters, test equipment, wiring devices, controls and hundreds of other electronic parts.

▲ For more details circle NED-6609 on enclosed inquiry slip ▲

Fiber Drums, Boxes & Bins

Fibre Specialty Mfg. Co.—6-page folder and three illustrated data sheets deal with hard vulcanized fiber materials handling equipment which includes caster mounted barrels, mill and tote boxes, bins and trays. Types and sizes are available for every handling or storage need.

▲ For more details circle NED-6610 on enclosed inquiry slip ▲

Germicidal Equipment

D. William Fuller Co.—Various types of ultraviolet germicidal equipment including upper room air, pendant, wall hung sanitizer and air conditioning units are described in six 2-page illustrated data sheets.

▲ For more details circle NED-6611 on enclosed inquiry slip ▲

Electronic Heaters

Progressive Electronics Co.—Standard and deluxe models of electronic heaters in range of 1.5 to 8 kw are described in 8-page illustrated bulletin. These units are adaptable for electronic heat sealing and forming of plastic film and sheeting.

▲ For more details circle NED-6612 on enclosed inquiry slip ▲

TO LICK TODAY'S MANPOWER SHORTAGE

Automatic ELECTRIC Trucks

FIRST CHOICE OF ALL 3

MANAGEMENT — Automatic Electric Trucks increased our production 25%. They're indispensable.

MAINTENANCE — My vote goes to Automatic Electric Trucks for rock-bottom maintenance — operating costs.

TRUCK OPERATOR — Automatic Electric Trucks take the work out of my job. They let me handle more goods faster.

Automatic Skylift — Lifts, moves and tiers material ceiling-high.

Here's Why They Are America's Largest Selling Electric Trucks

Every day, more companies are discovering Automatic Electric Trucks cut their material handling costs 50% to 75%. Operating with swift, silent ease, Automatic Electric Trucks make more manpower available for more productive jobs . . . help you step up your production . . . turn empty air into extra storage space by stacking ceiling-high and often pay for themselves in as little as months. For complete details write to:

Automatic TRANSPORTATION COMPANY

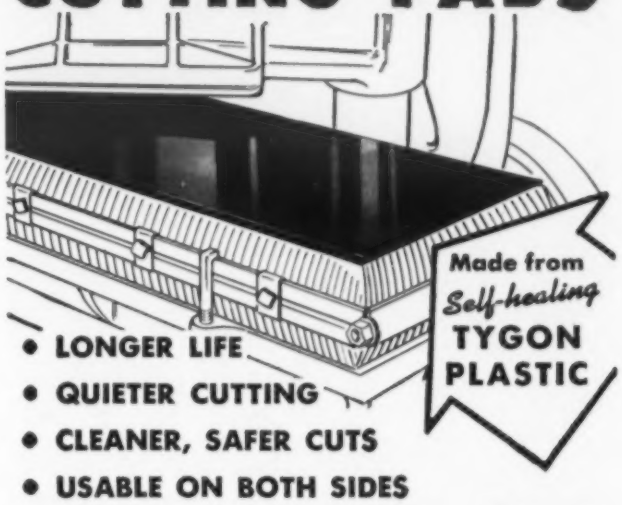
WORLD'S LARGEST EXCLUSIVE MAKER OF ELECTRIC INDUSTRIAL TRUCKS

DIVISION OF YALE & TOWNE

Automatic Transportation Co., 61 W. 87th St., Dept. M-1, Chicago, Ill.

▲ For more details circle NED-6613 on enclosed inquiry slip ▲

CUTTING PADS



Made from Self-healing TYGON PLASTIC

- LONGER LIFE
- QUIETER CUTTING
- CLEANER, SAFER CUTS
- USABLE ON BOTH SIDES

Colonial self-healing Cutting Pads on clicker machine or hand die cutting often double, even triple die life. Clean, sharp cuts, no bounce backs, no splinters. Use Colonial Cutting Pads to cut leather, rubber, plastics, candy, paper, fibre, cork, felt, cloth, light gauge metals. 68C-1

Write for Sizes, Prices — Address Dept. NED 851

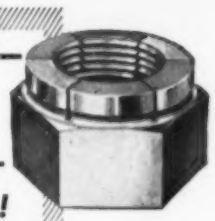
COLONIAL RUBBER CO.

RAVENNA, OHIO

▲ For more details circle NED-6614 on enclosed inquiry slip ▲

A fastener AIN'T, *if — it works loose.*

The "FLEXLOC" IS — *because it won't!*



FLEXLOC®

ONE-PIECE, ALL-METAL STOP- and LOCK-NUT

Its "chuck-like," resilient locking segments lock the "FLEXLOC" securely in any position on a threaded member with a controlled, uniform and dependable torque.

Tough applications demonstrate that the "FLEXLOC" positively "won't work loose", yet it can be removed easily with a wrench when desired. Because it is all-metal, temperatures as high as 550°F. hold no terrors for the "FLEXLOC."

The "FLEXLOC" has plenty of tensile . . . can be re-used many times . . . has therefore a long, effective life.

Write for further information and free samples.

SPS STANDARD PRESSED STEEL CO.

JENKINTOWN 24, PENNSYLVANIA

▲ For more details circle NED-6615 on enclosed inquiry slip ▲

FOR YOUR PANEL DIALCO

A NOVEL and UNIQUE CIRCUIT INDICATOR

DESIGNED FOR NE-51 NEON LAMP

For 110 or 220 volt circuits

The required resistor is an integral part of this assembly —"built-in."

RUGGED DEPENDABLE LOW IN COST

PATENTED: No. 2,421,321; Cat. No. 521308-997

WILL *YOU* TRY A SAMPLE?

Write on your company letterhead. We will act at once. *No charge, of course.*

SEND FOR THE 192 PAGE HANDBOOK OF PILOT LIGHTS

Among our *thousands of Pilot Light Assemblies* there is one which will fit *your special conditions.* Many are especially made and approved for *military* use. We pride ourselves on prompt deliveries—*any quantity.*

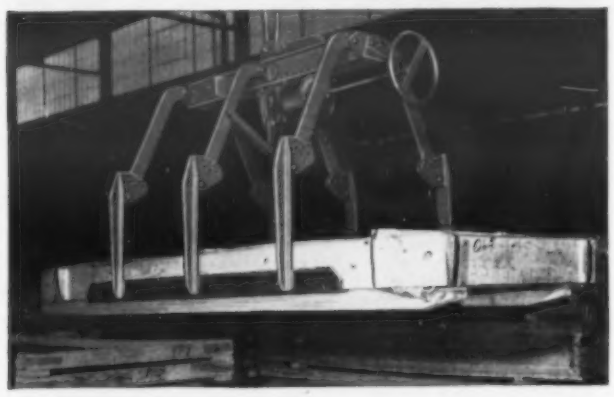
ASK FOR OUR APPLICATION ENGINEERING SERVICE

Foremost Manufacturer of Pilot Lights

The DIAL LIGHT COMPANY of AMERICA

900 BROADWAY, NEW YORK 3, N. Y. SPRING 7-1300

▲ For more details circle NED-6616 on enclosed inquiry slip ▲



HERE'S SHEET HANDLING ECONOMY

No better demonstration of the efficiency, flexibility and economy of C-F Lifters can be made than to watch this 5 ton C-F Lifter handle all sheet steel movement in this busy Chicago district warehouse.

C-F Lifters have quick opening jaws with infinite opening and closing adjustments, permitting them to handle a wide variety of sheet widths—wide bearing angles that safely lift sheets without crimping edges—end control to permit close quarter operation—positive jaw controlling mechanism that holds the jaws open in any position—these and many other exclusive features make C-F Lifters a good investment in materials handling equipment.

C-F Lifters are made in manual and motor operated models in sizes to handle from 2 to 60 tons in standard and semi-special designs.

Write for the Bulletin "C-F Lifters"—it describes the advantages and economies C-F Lifters can bring to your sheet handling jobs.

CULLEN-FRIESTEDT CO.
1304 South Kilbourn Avenue • Chicago 23, Illinois

For more details circle NED-6617 on enclosed inquiry slip

One OF A LINE...

APPROVED BY THE AIR FORCE

FOR *Dependable Control*

The Series 335 D.C. (AN 3316-2) Guardian Relay is one of a line of famous controls which distinguish Guardian Electric as a dependable supplier to the U. S. Air Force. *Hermetically sealed* (AN-3312) to (MIL-5757) specifications, or with conventional open and special mountings, Series 335-D.C. offers a wide variety of aircraft applications. Built to rigorous aviation standards, it meets the ANR-20-B and the MIL-R-6106. Generous coil winding area permits single windings up to 15,000 ohms. Parallel and double windings available. Write.

GUARDIAN ELECTRIC
1626-J W. WALNUT STREET CHICAGO 12, ILLINOIS
A COMPLETE LINE OF RELAYS SERVING AMERICAN INDUSTRY

For more details circle NED-6618 on enclosed inquiry slip

MULTIPLE DRILLING with a MULTI-DRILL
INCREASES CAPACITY UP TO 800%

ADJUSTABLE TO ANY HOLE PATTERN FITS ANY DRILL PRESS

If your production requires drilling from 2 to 8 holes in a work piece, a MULTI-DRILL will cut costs and speed output up to 800%. The MULTI-DRILL is universally adjustable to any hole pattern—is compactly built to permit easy, unhampered operation with drill jigs or other special fixtures. Ruggedly built to take the wear and tear of high production work, the MULTI-DRILL will handle your long and short run multiple drilling jobs with ease and economy. The MULTI-DRILL will drill on hole centers as close as ½"—handle drill sizes up to ⅜" in steel. Special adaptation available.

There is a Commander MULTI-DRILL Distributor in your area. Write for his name, literature and complete details.

COMMANDER MFG. CO.
4220 WEST KINZIE ST. CHICAGO 24, ILL.

Product of Commander—Builder of Production Tools

For more details circle NED-6619 on enclosed inquiry slip

New Literature—Continued

Wire Cloth & Screen

Cambridge Wire Cloth Co.—Illustrated bulletins 81, 82, 84, 86, 87, 89 and 92 present comprehensive data on metallic filter cloth, wire conveyor belts, woven wire cloth, wire screens and food processing equipment. Also available is 8-page illustrated technical article entitled "Woven Wire Conveyor Belts for High Temperature Service."

For more details circle NED-6620 on enclosed inquiry slip

Centrifugals

Fletcher Works—26-page illustrated catalog "Modern High-Speed Centrifugals" shows design, construction, operating characteristics and other details of line of centrifugals for the chemical and process industries. Direct and V-belt driven models are available with up to 48 x 24-in. baskets of any desired material and develop centrifugal forces up to 1740 times gravity.

For more details circle NED-6621 on enclosed inquiry slip

Machine Window Units

Bijur Lubricating Corp.—Open and liquid level type window units which can be installed easily in machines or equipment are described in 4-page illustrated bulletin 4D. Round plastic-windowed units require simple press fit into reamed hole. They are liquid-tight and permit observation of internal moving parts or of liquid level.

For more details circle NED-6622 on enclosed inquiry slip

Liquefied Gas Handling

Arthur D. Little, Inc.—Production, handling and storage of liquefied gases is subject of 22-page illustrated booklet. Included are descriptions of ADL Collins helium cryostat, hydrogen liquefier, liquid oxygen generator, helium refrigerator and liquid oxygen pump. Engineering services of this organization are discussed.

For more details circle NED-6623 on enclosed inquiry slip

Tank Level Controls

Automatic Control Co.—Details of Autocon Multi-Pump Tanktrols for maintaining proper liquid levels in elevated tank systems are described in 4-page illustrated bulletin 1110. Advantages of system are shown and typical specifications cited.

For more details circle NED-6624 on enclosed inquiry slip

Metallograph

Bausch & Lomb Optical Co.—20-page illustrated catalog E-232 gives application and operating data on Balphot all-purpose metallograph which permits speedy determination of crystalline structure, composition, grain-size and nonmetallic inclusion content in metals. Four types of illumination and Magna-Viewer projection screen are covered.

For more details circle NED-6625 on enclosed inquiry slip

Spray Nozzles

Yarnall-Waring Co.—"Spray Nozzles for Water Cooling, Air Conditioning and General Industrial Uses" is title of 20-page illustrated bulletin No. N-617. Available designs and sizes, typical applications, capacities and other data are included on involute and fan spray nozzles.

For more details circle NED-6626 on enclosed inquiry slip

THE **NIBBLEX**

even cuts CORRUGATED SHEET METAL as clean as a whistle!

NO SHEARING ACTION - BUT

A NEW PRINCIPLE OF A DIE and PUNCH

No Bending • No Burrs • No Rough Edges

The NIBBLEX may be powered with any ¼" electric or air drill or flexible cable. It may be used for cutting sheet metal (up to 20 gauge) at the rate of 7 to 15 feet per minute. A very valuable tool for all the metal working trades—yet priced to sell at a low $13.75.

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50 CHURCH STREET, NEW YORK 7, N.Y.

For more details circle NED-6627 on enclosed inquiry slip

IF YOU WALK ON IT IT CALLS FOR OPEN STEEL FLOORING

SAFE FOOTING
AT EVERY STEP

Build safe, dependable walking surfaces in your new or present industrial plant—indoors and outdoors—with Open Steel Flooring . . . the versatile, durable flooring of strength, safety, ventilation and light.

Be sure to investigate Open Steel Flooring and the new Specifications as described and illustrated in our new 16-page Idea-Book, "Versatile." Your free copy is ready to mail on request. Write for it today.

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These Manufacturers assure top quality engineered grating.
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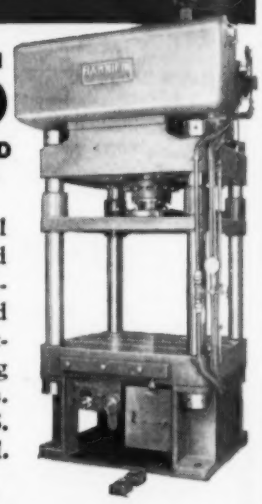
BLAW-KNOX COMPANY Pittsburgh, Pa.
IRVING SUBWAY GRATING CO., INC. Long Island City, N.Y.
STANDARD STEEL SPRING CO., Gary, Indiana

For more details circle NED-6628 on enclosed inquiry slip

helpful **HYDRAULIC PRESS catalog**

75 STANDARD MODELS



Keep it in your machine tool file. Hannifin Standardized Hydraulic Presses Catalog contains complete descriptions and specifications on Hannifin Forcing Presses, Straightening Presses, Column-Type Presses. Hannifin Corporation, 1127 S. Kilbourn Ave., Chicago 24, Ill.

do ALL you CAN do... with

HANNIFIN

Air Cylinders • Hydraulic Cylinders • Hydraulic Presses
Pneumatic Presses • Hydraulic Riveters • Air Control Valves

For more details circle NED-6629 on enclosed inquiry slip

Announcing...
Binks New Model 29

The *only* LOW COST spray gun with all these HEAVY-DUTY gun features!

lightweight to reduce fatigue—gun weighs just 1¼ lbs.!

cartridge-type air valve for fast replacement—you remove the air valve as a complete unit.

brass & steel material passage for better finishes—paint contacts only non-corrosive brass or hardened steel.

and:
bottom air inlet—for perfect balance.
large air passages—means minimum air pressure loss.
an attractive low price.

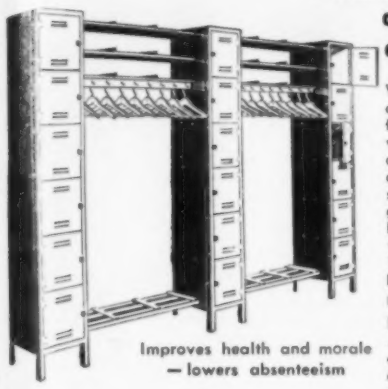
Send now for Bulletin 29 for details on prices, nozzle set-ups...and for cut-away view that clearly illustrates superior construction of Model 29.

Binks MANUFACTURING COMPANY
3122-34 West Carroll Ave., Chicago 12, Ill.

For more details circle NED-6630 on enclosed inquiry slip

VALET RACKS

LOCKERETTE
—Combines the best features of both lockers and coat racks



Improves health and morale — lowers absenteeism

Wraps are exposed to air and light. Employees do not face the weather in damp wraps that have been crumpled in dark lockers—do not eat soggy lunches, soaked by wet hats or gloves. Each person has his own spaced coat hanger, ventilated hat shelf and 12" x 12" x 15" deep lock box for lunches, tools and personal effects.

Lockerettes save space too . . . the No. 6-12 (2-column) accommodates 12 people in 6 ft; the No. 9-18 (illustrated) accommodates 18 in 9 feet.

Write for Bulletin No. OL 8

VOGEL - PETERSON CO.
624 So. Michigan Ave., Chicago 5, Ill.

For more details circle NED-6631 on enclosed inquiry slip

Unbreakable **"workhorses"**

STRONGER, SWIFTER
ForgeWelds

Brute strength and fluid smoothness—you get *both* in ForgeWelds. Day-in and day-out—under heaviest loads and relentless pounding—these extra-tough casters keep rolling on. And how they roll! Hauling units equipped with ForgeWelds glide along on the finest ball bearing swivels and roller bearing wheels . . . speed up handling in *any* plant. What's more, once these "workhorses" are on your trucks, replacements will be rare indeed. ForgeWelds come in all types and sizes for all needs.

Makers of
Power Lift Trucks
Hand Lift Trucks
Lifters • Cranes
Dollies • Skids
Trucks & Trailers
Casters • Wheels

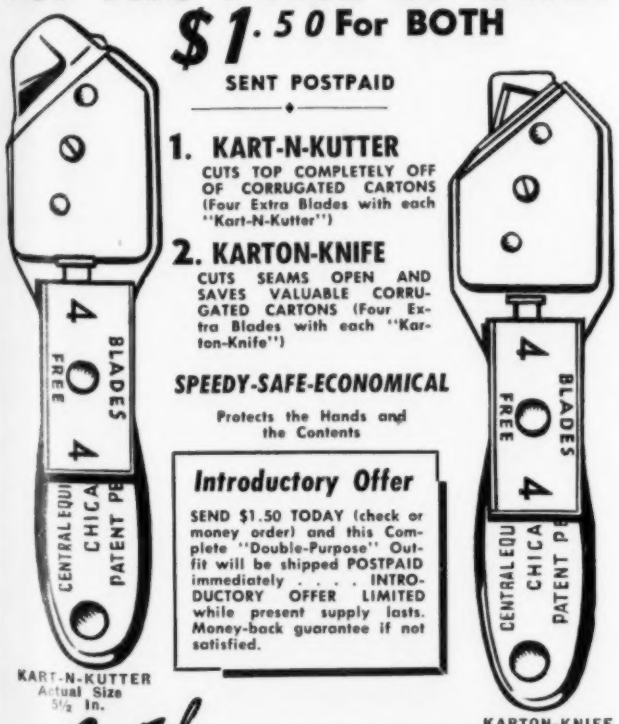
SERVICE CASTER & TRUCK CORP.

Executive Offices: Albion, Michigan
Plants at Albion, Mich. and Somerville 43, Mass.
Representatives in all Principal Cities

For more details circle NED-6632 on enclosed inquiry slip

Two Carton Cutters for the Price of One!

$1.50 For BOTH
SENT POSTPAID



KART-N-KUTTER Actual Size 5½ In.

KARTON-KNIFE Actual Size 5½ In.

1. KART-N-KUTTER
CUTS TOP COMPLETELY OFF OF CORRUGATED CARTONS (Four Extra Blades with each "Kart-N-Kutter")

2. KARTON-KNIFE
CUTS SEAMS OPEN AND SAVES VALUABLE CORRUGATED CARTONS (Four Extra Blades with each "Karton-Knife")

SPEEDY-SAFE-ECONOMICAL
Protects the Hands and the Contents

Introductory Offer
SEND $1.50 TODAY (check or money order) and this Complete "Double-Purpose" Outfit will be shipped POSTPAID immediately . . . . INTRODUCTORY OFFER LIMITED while present supply lasts. Money-back guarantee if not satisfied.

Central CENTRAL EQUIPMENT CO.
1020 W. Adams St., Chicago 7, Illinois

For more details circle NED-6633 on enclosed inquiry slip

New Literature—Continued

Mobile Ladders

Ballymore Co.—All steel mobile ladders available with from one to eight steps for average work levels up to 11½ ft above floor are covered in this six-page illustrated catalog, along with details of four-step Stockart ladder with adjustable push bar hangers for use with stock carts. Safety feature consists of ball bearing casters that automatically retract when person steps on ladder.

For more details circle NED-6634 on enclosed inquiry slip

Power Tractor

Gravely Motor Plow & Cultivator Co.—8-page illustrated bulletin SP-9-50 is entitled "How to Solve Snow Removal Problems with Gravely Power Equipment." This 5-hp gasoline engine driven tractor is adaptable to wide range of industrial operations. Simple attachments convert it to snow blower, snow plow, power brush for floors or driveways, mower, rotary saw, roller, hauling cart, power unit and air compressor.

For more details circle NED-6635 on enclosed inquiry slip

Electric Ovens & Furnaces

Blue M Electric Co.—32-page illustrated catalog "Electric Ovens, Furnaces and Related Temperature Control Equipment" contains complete information on units for laboratory and pilot plant production. Equipment is described for drying, heating, testing, heat treatment, annealing, baking and other operations involving controlled temperatures up to 2000° F. Sizes and types are available for every need.

For more details circle NED-6636 on enclosed inquiry slip

Vibrationproof Locknuts

Townsend Co.—4-page illustrated folder TL-63 describes Tufflok hexagon nuts in sizes from No. 4-40 to ⅜-in.-24 which comply with military specifications and on Nylok locknuts which are available in American standard light and American standard light-thick series in sizes of ¼-in. through ⅜-in. Other fastening products are listed.

For more details circle NED-6637 on enclosed inquiry slip

Cellular Expanded Rubber

Great American Industries, Inc., Rubatex Div.—Properties and applications of Rubatex closed cellular expanded rubber are detailed in illustrated catalog. Twelve specimens of Rubatex showing variations in density and color are included upon request. This material is composed of minute individually sealed rubber-walled cells which are filled with inert nitrogen under pressure. It is impervious to moisture and made of natural or synthetic stocks.

For more details circle NED-6638 on enclosed inquiry slip

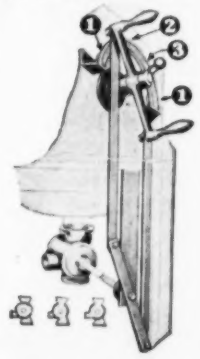
Thermal Insulation

Owens-Illinois Glass Co., Kaylo Div.—24-page illustrated booklet "The Story of Kaylo" introduces this new building and insulating material which is lighter than wood, is as incombustible as concrete and has exceptionally high thermal insulating value. Firedoors, heat insulating block, roof tile, pipe insulation and laminated structural panels are typical of uses of this hydrous calcium silicate product.

For more details circle NED-6639 on enclosed inquiry slip

POSITIVE CONTROL OF TANK CONTENTS!
LANGSENKAMP THREE-WAY VALVE

Provides positive one-point control of tank contents. Eliminates possibility of waste caused by accidental releasing of old-time plugs. With Langsenkamp's three-way valve, there is absolutely no seepage after short uses . . . no restriction in valve provides full flow of product. Easily installed and saves time as well.



Position No. 1— All positions closed.
Position No. 2— Straight through.
Position No. 3— To waste line.

Send for further information NOW—write

F. H. LANGSENKAMP CO.
227-238 E. SOUTH ST., INDIANAPOLIS 25, IND.

For more details circle NED-6640 on enclosed inquiry slip

STAINLESS STEEL FLOATS

Your product will be better, will require virtually no maintenance, if it is equipped with Chicago's stainless floats. In fifteen years of making welded stainless steel floats, Chicago Float Works has produced many thousands with excellent results under severe operating conditions. This enviable record assures you of the finest, most dependable floats available to build into your products or for replacement use.

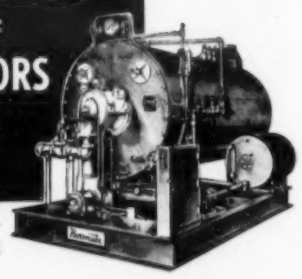
CHECK THESE FEATURES
- Standard Diameters 2 to 10".
- Pressures to 1000 lbs.
- Temperatures to 800°F.
- All Standard Spud Connections.
- Top quality 18-8 Stainless Steel.
- Non-corized weld for superior strength, and corrosion resistance available where required.

WRITE FOR FREE CATALOG

CHICAGO FLOAT WORKS, INC.
2342 So. Western Avenue • Chicago 8, Illinois

For more details circle NED-6641 on enclosed inquiry slip

Powermaster®
Fully Automatic
STEAM GENERATORS
AND HOT WATER BOILER UNITS



15 to 500 HP.—15 to 200 p.s.i.—for light oil, heavy oil, gas and gas/oil firing.

SIMPLIFIED INSTALLATION
SAVES PLANT SPACE
REDUCES FUEL COSTS
HOSPITAL-CLEAN OPERATION
AUTOMATIC SAFETY PLUS
EASY BOILER MAINTENANCE
SAVES MAN-HOURS DAILY

Write For Bulletin

ORR & SEMBOWER, INC.
930 Morgantown Rd., Reading, Pa. Established 1885

For more details circle NED-6642 on enclosed inquiry slip

IMMEDIATE DELIVERY!

STANDARD FLAT TYPE
C7000 SERIES
SPEED NUTS®

Fastest Thing in Fastenings

Faced with a shortage of lock nuts? Do as thousands of manufacturers have done—switch to SPEED NUTS. They can be applied much faster, eliminate assembly steps, and provide maximum holding power at minimum cost per fastener. They spin on by hand, tighten down without being held with a wrench.

10 SIZES—For machine screws, C7000 SPEED NUTS are available in these sizes: –436, –632, –832, –1024, –¼-20. For tapping screws: –4A, –6A, –8A, –10A, –14A. Write for samples.

TINNERMAN PRODUCTS, INC.
Dept. 12-A, Box 6688, Cleveland 1, Ohio

For more details circle NED-6643 on enclosed inquiry slip

READINGS AT A GLANCE

for BOTH AC and DC

Instant Current Measurements Without Breaking Circuit or Insulation . . .

You can read 'em fast and accurately with the Columbia Tong Test Ammeter by merely clamping the tongs around the electrical conductor. Tong Test is the only instrument of its type that can measure both AC and DC. Cannot burn out for it has no windings. Safe, convenient and light in weight. Interchangeable scale ranges up to 1000 amperes. Five types to accommodate cables up to 3⅞", bus bars up to 4½" x ½". Voltage readings, too, with the Voltor Attachment.

Write for Tong Test Bulletin ND-400

COLUMBIA — COLUMBIA ELECTRIC MFG. CO.
4525 Hamilton Ave., Cleveland 14, Ohio

For more details circle NED-6644 on enclosed inquiry slip

THE RIGHT STEP

*to increased production with Towmotor MH**

The right step to increased production and lowered costs is the light step on Towmotor's accelerator that quickly puts Mass Handling to work. Loading and unloading operations and in-plant movement of materials speed up . . . hard to reach storage space is used profitably as Towmotor cuts handling costs as much as 95%. 12 Towmotor models handle loads from 1,500 to 15,000-lbs. To learn how Towmotor increases production, write for "*Handling Materials Illustrated.*" TOWMOTOR CORPORATION, Div. 25, 1226 E. 152nd St., Cleveland 10, Ohio. Representatives in all principal cities in U. S. and Canada.

**MH is Mass Handling—the systematic movement of the most units in the shortest time, at lowest cost.*

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FORK LIFT TRUCKS and TRACTORS

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For more details circle NED-6645 on enclosed inquiry slip

for the RIGHT answers to YOUR alloy fastening problems . . .

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HARPER CAN HELP YOU.. because Harper makes them *all*—has fastenings in exactly the *right* alloy, size, type and finish you need. Harper deals exclusively in nonferrous and stainless steel fastenings—bolts, nuts, screws, rivets and accessories in brass, bronze, copper, aluminum, Monel and stainless steel that provide maximum resistance to corrosion, heat, abrasion and stress. Over 7000 items in stock ready for delivery from warehouses and distributors, nationwide. Mail coupon for new catalog.

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Send my copy of new Harper Catalog.
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Address.....
City.....*State*.....

For more details circle NED-6646 on enclosed inquiry slip

New Literature—Continued

Sheet Metal Fabrication

Penn Metal Corp. of Penna.—Manufacturing facilities available for fabrication of essential sheet metal products and components are described in 16-page illustrated bulletin "Penco Presents." Equipment, engineering and production departments are covered. Typical of products currently produced by the company are lockers, shelving, storage cabinets and shop equipment.

For more details circle NED-6647 on enclosed inquiry slip

Drafting Department Lighting

General Electric Co., Lamp Div.—"Lighting Guide to Better Drafting" is 8-page illustrated bulletin which uses drawings and photographs to show proper lighting for straight edges and shiny surfaces, proper positioning of drafting boards and recommended types of lighting systems for drafting departments.

For more details circle NED-6648 on enclosed inquiry slip

Power Transmission Drives

Morse Chain Co.—Illustrated catalog C72-51 discusses operating principle of chain drives; design of HY-VO power transmission drives; application of this drive for high speed heavy duty service; capacities, speed ranges and service factors for selecting drives; and installation and lubrication procedures.

For more details circle NED-6649 on enclosed inquiry slip

Milling Attachment

Versa-Mil Co.—Precision milling, boring and grinding operations are possible with Versa-Mil described in 22-page illustrated bulletin 8. It can be combined with machine tools and work-holding fixtures. Attachment accommodates wide range of speeds and angular positioning. This motor driven device can be mounted in any position on carriage, table, ram, turret or tool arm and is available in two sizes.

For more details circle NED-6650 on enclosed inquiry slip

Hydrogen Peroxide

Pennsylvania Salt Mfg. Co.—36-page illustrated bulletin "Hydrogen Peroxide" is reference guide to use, handling, shipping and storage of this powerful oxidizing agent. Brief explanation of terminology is given. Nontechnical language is used to guide those considering using hydrogen peroxide for the first time.

For more details circle NED-6651 on enclosed inquiry slip

Plastic Coating of Paper

Bakelite Co.—32-page illustrated bulletin "Bakelite Polyethylene for Paper Coatings" describes extrusion-lamination process for coating paper. Extensive data are included on chemical and physical properties of polyethylene films. Process involves the lamination of hot extruded film directly on paper as film is produced by screw type extruder.

For more details circle NED-6652 on enclosed inquiry slip

Pneumatic Tools

Rotor Tool Co.—"Air Tools for the Foundry, Steel Mill, Production Line and Assembly Plant" is title of 40-page illustrated bulletin No. 38. Complete information is listed for air actuated screwdrivers, nut setters, sanders, drills, grinders, rammers, chippers and scalers. Specifications are given on complete line.

For more details circle NED-6653 on enclosed inquiry slip

Oil Heaters

Water Tube Boiler & Tank Co.—16-page illustrated bulletin O-51 is catalog of new Gas-Tu-Bo fuel oil preheater which operates independently of boiler, Wa-Tu-Bo safety oil heater which cannot contaminate boiler water and U-tube type oil heater for low cost installation.

For more details circle NED-6654 on enclosed inquiry slip

Sheet Metal Products

Platt & Labonia Mfg. Co.—Metal shop boxes, industrial trucks, production racks and tote pans shown in 4-page illustrated bulletin 4-51 are typical of sheet metal products which can be produced in brass, steel, stainless, Monel and aluminum by this company.

For more details circle NED-6655 on enclosed inquiry slip

Blind Rivets

Cherry Rivet Co.—8-page illustrated catalog C51 condenses information on vibration-resistant blind rivets and their application. These fasteners can be inserted from one side of work and clinched quickly with hand or pneumatic tool.

For more details circle NED-6656 on enclosed inquiry slip

Air Actuated Tacker

Fastener Corp.—Suitable for driving ¼, 5/16 and ⅜-in. standard or narrow crown staples, Duo-Fast tacker operates on 85 to 110-lb compressed air line. Full information regarding applications of this production fastening tool is given in 4-page illustrated bulletin FT-16.

For more details circle NED-6657 on enclosed inquiry slip

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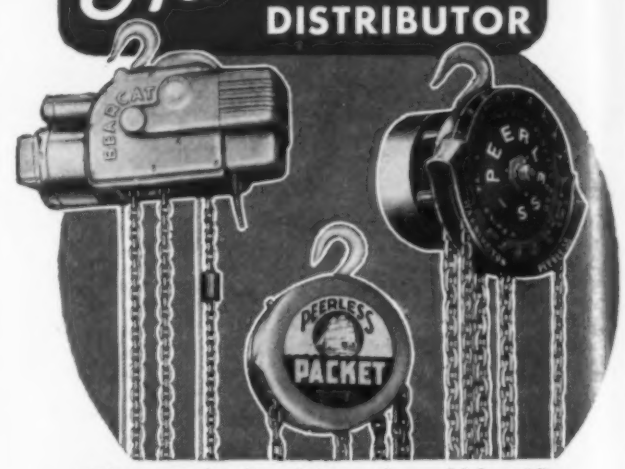

carries a complete line of time-saving and labor-aiding hoist products. He'll be glad to help you with your materials handling problems. Write for your local Harrington Distributor's name and a copy of our Condensed Catalog. Of course, there is no obligation.

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HOIST MANUFACTURERS SINCE 1876

For more details circle NED-6658 on enclosed inquiry slip

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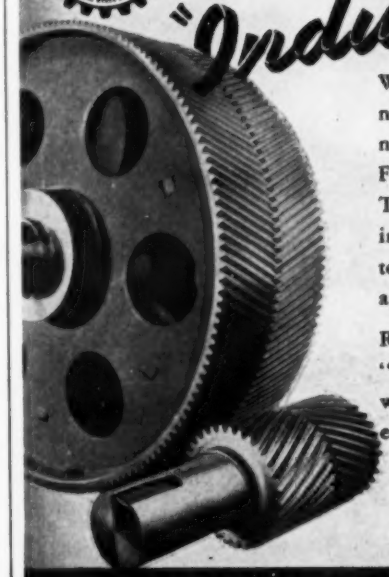

We are pleased to announce that our plant is now equipped to produce Farrel-Sykes Continuous Tooth Herringbone Gears in a wide range of sizes up to 61 inch diameter—with an 18 inch face.

Reliable service—same "IG" Quality—coupled with greatest accuracy and economy in production.

Send us your specifications. Write for Bulletin No. 151.

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L-O-N-G CREEPAGE PATH
in T & B Self-Insulated Sta-Kon® Terminals assures electrical performance

Terminal insulation extends beyond terminal body—for long creepage path.

THERE'S A T&B ENGINEERED PRODUCT for every wiring job in the complete T & B line of fittings for all conductors and raceways

These new components end the risk of shorts between closely-mounted terminals. Insulation prevents metal-to-metal contact—withstands attack by gasoline, naphtha, hydraulic fluids.

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INCORPORATED
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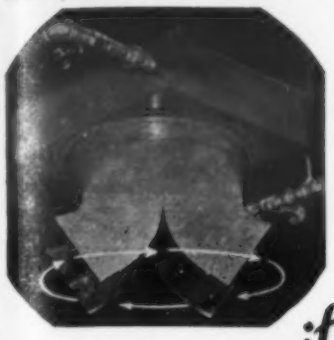
Manufacturers of Electrical Fittings since 1898
Originators of self-insulated solderless terminals in 1935

For more details circle NED-6660 on enclosed inquiry slip



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The discharge outlets revolve slowly, just as they do for distribution of heated air, projecting a cooling stream of constantly moving air over and around obstacles, to all parts of the working area. The oppressive, stagnant atmosphere is relieved, bringing renewed vigor to workers in the sticky summer months.

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Write for Bulletin HR-5.

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Linden, N. J.
Factories:
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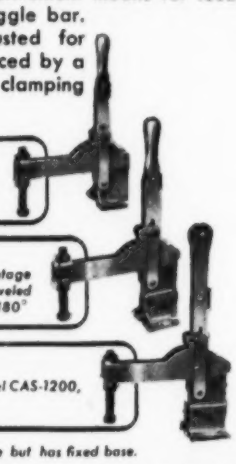
Wing
Revolving
UNIT HEATERS

▲ For more details circle NED-6661 on enclosed inquiry slip ▲

Announcing
NEW CAM CLAMPS

These cam-action clamps were designed for applications where parts (such as castings, larger forgings, or stacked stampings) having variable thickness, are to be held. They are the only big cam clamps known that provide convenient means for locating the spindle assembly along the toggle bar.

The spindle itself is easily adjusted for clamping height, and can be replaced by a special pressure pad to suit other clamping requirements.



MODEL CAV-1200
Recommended force at end of toggle bar: 1200 lbs. Recommended force 3⅛" from front of base, 1900 lbs.

MODEL CAS-1200
This clamp has the additional advantage of permitting the toggle bar to be swiveled around the base to any position within 180°

MODEL CAS-2000
This clamp has the same features as Model CAS-1200, but for 2000 lbs. clamping force.

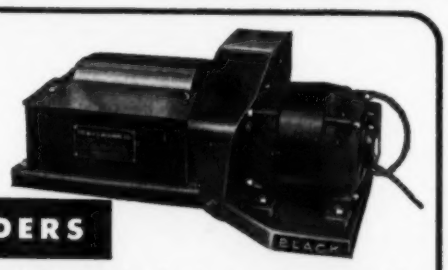
MODEL CAV-2000—similar to above but has fixed base.

This entire series is also available without cam action (with fixed locking). Catalogued as Models V-1200, S-1200, V-2000, and S-2000. Complete catalog sent on request.

KNU-VISE PRODUCTS LAPEER MFG. CO.
3062 DAVISON ROAD • LAPEER, MICHIGAN

▲ For more details circle NED-6662 on enclosed inquiry slip ▲

BB PORTABLE...MOTOR DRIVEN



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Made for all kinds of adhesives . . . hot or cold. Applies an even, economical coat. 115 volt AC motor. Floor stand with casters available if desired. Write for Bulletin 11-A.

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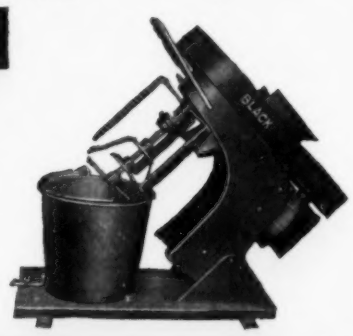

Made in 2, 5, 7½, and 15 gal. sizes. Powder added gradually through oscillating sifter. Arm hinged so that it can be tilted out of the way. Two way agitation. Write today for Bulletin 11-I.

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MENDOTA, ILLINOIS, U. S. A.

▲ For more details circle NED-6663 on enclosed inquiry slip ▲

New Literature—Continued

Scaffolding

Automatic Devices, Inc.—Details regarding Adjustomatic steel or aluminum scaffolding are given in 12-page illustrated bulletin. Adaptable to construction, maintenance and other operations, scaffolding is made up to desired size and shape by assembling end frames and braces which interlock without use of braces.

▲ For more details circle NED-6664 on enclosed inquiry slip ▲

Heat Transfer Coils

Kold-Hold Mfg. Co., Platecoil Div.—Laboratory data on use of Platecoils as means of heat exchange, based on tests conducted at Battelle Memorial Institute, are presented in illustrated technical manual. Wide range of sizes and constructions is available in these Platecoils for industrial heating and cooling applications.

▲ For more details circle NED-6665 on enclosed inquiry slip ▲

Centralized Lubrication

Farval Corp.—8-page illustrated bulletin "Studies in Centralized Lubrication" cites case studies showing savings effected through installations on dredges, slide surfaces and open gearing, rolling mill, crusher and sugar mill. Systems apply proper amounts of lubricant at needed wear points.

▲ For more details circle NED-6666 on enclosed inquiry slip ▲

Self-Tapping Screws

Parker-Kalon Corp.—Condensed in 24-page illustrated booklet No. 480 are the essentials of P-K self-tapping screw selection, application information, recommended hole sizes and corresponding drill size numbers. Types and sizes of self-tapping screws are available for use in sheet metal, castings, plastics and plywood with various types of slotted, Phillips and hex heads.

▲ For more details circle NED-6667 on enclosed inquiry slip ▲

Tube Installation & Maintenance Tools

Key Co.—16-page illustrated bulletin 451 describes various types and sizes of tube expanders, tube rolling air motors, wrenches, pullers and other accessories for installation and maintenance of heat exchange and process equipment which uses tubing.

▲ For more details circle NED-6668 on enclosed inquiry slip ▲

Flexible Hose & Fittings

Aeroquip Corp.—44-page illustrated "Industrial Catalog" deals with single and double cotton and wire braid hose and fittings, assembly tools and accessories, and breakaway and self-sealing couplings. Engineering data and specifications are included to aid in selection and application of hose lines for pneumatic, hydraulic and fluid carrying purposes.

▲ For more details circle NED-6669 on enclosed inquiry slip ▲

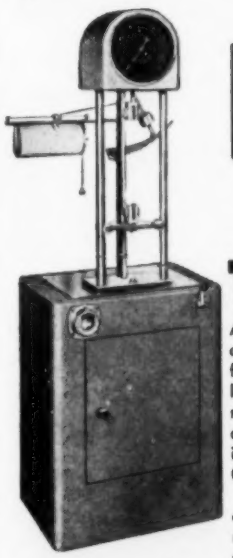
Machine Tools

Cincinnati Milling Machine Co. & Cincinnati Grinders, Inc.—48-page general catalog M-1712 contains condensed information on line of machines for milling, broaching, cutter sharpening, grinding, lapping and flame hardening as well as on cutting fluid. Specifications and brief descriptions of all machines are included.

▲ For more details circle NED-6670 on enclosed inquiry slip ▲

small COMPACT TESTER

large ACCURATE RANGE



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multi-low-range universal
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Explosion-Safe
SPARK-PROOF FLOORS
DISSIPATE STATIC ELECTRICITY

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Boosts Production

from 66 to 500 Pieces per Hr.

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Abrasive
Belt Machining

PREVIOUS METHOD—Z-shaped pieces milled one at a time at rate of 66 per hour.

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Generate Radii
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Smooth Parting Lines

A Complete Line:
Platen Grinders • Contour Grinders • Contact Grinders • Centerless Grinders • Free-Belt Grinders • Bench Grinders

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Mfrs. of SPEEDMATIC and GUILD ELECTRIC TOOLS
In Canada write: Strongridge, Ltd., St. Catharines, Ont.

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HERMAN NELSON ECONOMY MODEL PORTABLE HEATER

Electric motor powered. Uses kerosene for heating fuel. 125-190,000 BTU capacity. Costs but 19¢ per hour to operate.

HEAT ON WHEELS

...for Construction or Standby!

SUPERIOR features of Herman Nelson Portable Heaters give you quick, safe, economical heat . . . *where you need it*. Easily moved and operated by one man. Exclusive "*sealed flame*" eliminates dangers of toxic fumes . . . fire hazards. Make your own "working weather" with Herman Nelson units. Heat that's reliable . . . always ready for any job. Available in many types . . . and capacities up to 450,000 BTU.

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AAF

HERMAN NELSON

Division of AMERICAN AIR FILTER COMPANY, INC.
MOLINE, ILLINOIS

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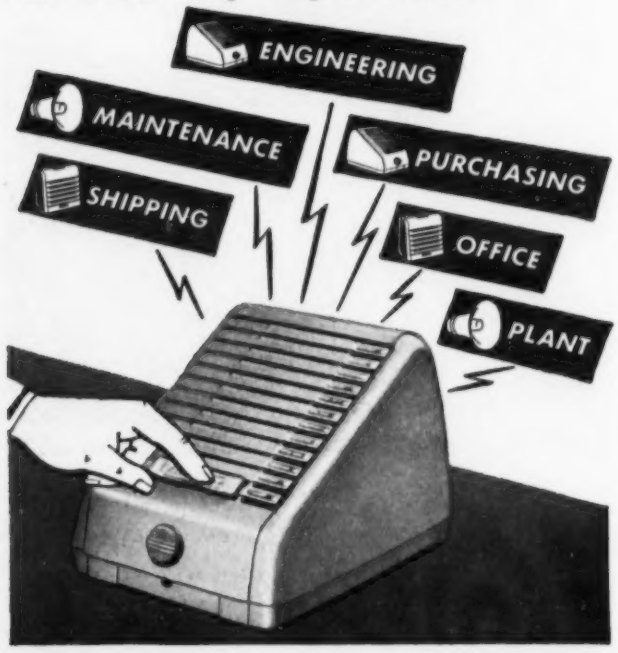
Step Up Production

with faster communication between Key Departments



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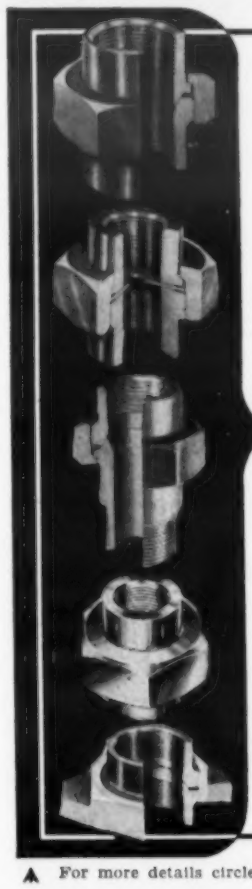

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The DENISON Engineering Co.
1151 Dublin Rd., Columbus 16, Ohio

DENISON HydrOILics

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ONE CENT
PER SQUARE FOOT
PER YEAR

That's just about all it would cost you to resurface your floors, because of the lasting qualities of

STONHARD RESURFACER

Use it to patch ruts or make a complete overlay on irregularly worn floors. No special tools are needed, STONHARD RESURFACER is applied right over your existing floor (concrete, wood, brick or composition) at a standard thickness of one-half inch. It bonds securely, tapers to a feather edge, and provides a smooth, tough wearing resilient surface that will withstand the heaviest traffic for years to come. A trial demonstration can be arranged in your own plant. Mail the coupon today for full information.

Over 600 million sq. ft. of STONHARD RESURFACER in use all over the U. S. A.

STONHARD COMPANY
Building Maintenance Materials Since 1922
101 Stonhard Bldg., 1306 Spring Garden St., Phila. 23, Pa.

Send RESURFACER Data to: 101/8/51
NAME .....
COMPANY ..... TITLE .....
ADDRESS .....
CITY ..... ZONE ..... STATE .....

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RECLAIM YOUR METALS

NOW... more than ever!

- FAST
- LOW COST
- STEARNS

THERE'S money in scrap! Now is the time to turn your brass, bronze and aluminum turnings and borings into dollars. Do it the STEARNS way—clean your secondary metals from iron and steel particles quickly, efficiently and economically with a STEARNS Type "LLP" Magnetic Separator.
Write today for complete information on this permanent magnetic separator which gives continuous, automatic separation at practically no expense.

Stearns MAGNETIC MANUFACTURING CO.
653 S. 28th St., Milwaukee 46, Wis.

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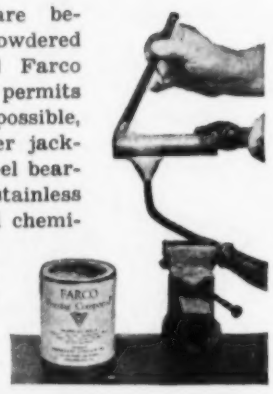
TINS ALL METALS



Difficult tinning problems are being solved with a new powdered solder containing flux, called Farco Tinning Compound which permits jobs heretofore considered impossible, such as tinning cast iron water jackets and cylinder heads, cast steel bearings, pipes, cylinders and stainless steel equipment. The powerful chemical formula will lift the oxides from aluminum, and on other metals is more drastic than ordinary acids. Makes it possible to lift the scale and tin black iron in one operation. Stability of the new powder makes it possible to judge heat on large bearings by its action in turning liquid when proper temperature for tinning is reached. Although strong enough to remove scale, dirt, and tin rusty surfaces thoroughly, it does not produce harmful fumes nor will it burn the skin. When used on gasoline motors, Diesel and marine engine bearings it is reported to increase performance life 100%. The compound may be applied with either torch or soldering iron depending on thickness of metal, and any good grade of solder may be used. Packaged in 1½ lb. cans, price $3.00 f.o.b. *Advt.*

FARRELLOY CO.

1246 North 26th St. **Phila. 21, Pa.**

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10-DAY DELIVERY!

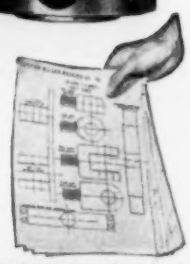
SIMPLEST... MOST COMPACT

O-M AIR HYDRAULIC WATER CYLINDERS

Speed production, cut costs and save space with Ortman-Miller cylinders. Full range of sizes (1-½" to 8" bores) now *available for early delivery.* All machined steel and bearing bronze. Interchangeable parts and mounting Brackets. Write today!

FREE TEMPLATES

Shows the full line in ½ scale. Request your free complete set now.



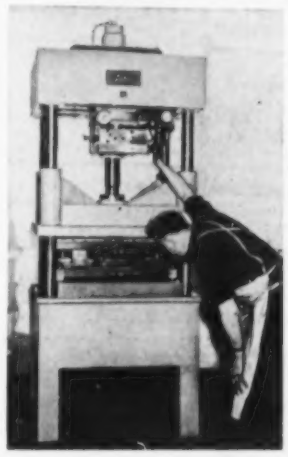
ORTMAN-MILLER

MACHINE CO., INC.

1222-4 150th Street, Hammond, Indiana

▲ For more details circle NED-6685 on enclosed inquiry slip ▲

DIE MATCHING PRESSES
capacities are from 25 to 125 tons



Designed for die matching, series of hydraulic presses can also be used for short production runs and manufacturing samples. Line includes single and double-acting types in 25 to 125-ton capacities. All models are actuated by hydraulic mechanism operated by electric motor or air cylinder to attain maximum power and speed at 90 or 145 lb air pressure. Single-acting models have powered up stroke and gravity return. Double-acting models are powered on both strokes and have automatic rapid advance. Made by **Dake Engine Co.,** Dept. 743-C, Grand Haven, Mich.

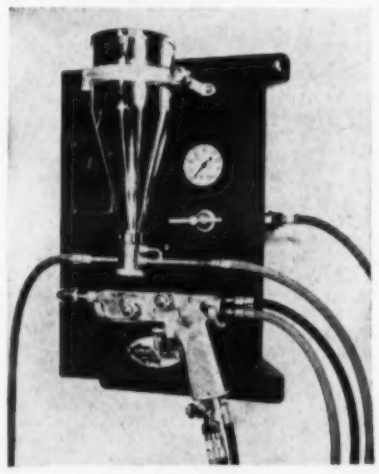
▲ For more details circle NED-6686 on enclosed inquiry slip ▲

STANDARD WRENCHES
efficiency, handling ease improved

Improvements made in Proto standard box, open end and combination box and open end wrenches make them more efficient and easier to handle. Jaws of open end heads are narrower to reduce overall width of new pear-shaped heads, thus permitting work in closer quarters. Shank edges are well-rounded and surface between size markings is smooth and flat to make shank easier on hands. Open end flats and box exteriors are polished and shanks are given satin finish. Lengths are changed to provide proper leverage for each wrench and to make progression of lengths more uniform. Made by **Plomb Tool Co.,** Dept. D, 2209 Santa Fe Ave., Los Angeles 54, Calif.

▲ For more details circle NED-6687 on enclosed inquiry slip ▲

POWDER METALLIZING UNIT
builds up or hard-faces surfaces



Metal powders such as copper, brass, stainless, aluminum and zinc as well as hard facing alloys are applied in uniform overlays on metal parts and are bonded to base metal with this model B Spraywelder. Features of this powder metallizing unit include light weight, eye-level air gage, large air filter and regulator, finger tip control with lock for intermittent or continuous spraying and lock on feed mechanism to prevent change in powder feed setting. Made by **Wall Colmonoy Corp.,** 19399 John R St., Detroit 3, Mich.

▲ For more details circle NED-6688 on enclosed inquiry slip ▲

COVER PIPES TANKS, WALLS

NO Drip

Anyone can brush, trowel or spray NoDrip on any clean, dry surface. Goes on like plaster, forms a seamless, protective coating, *STOPS CONDENSATION DRIP.*

NoDrip keeps equipment and floors safe and dry; prevents corrosion of metal and prolongs its life. Acid, alkali and brine resistant. Comes in 1, 5 and 55 gal. drums, ready for use.

TRY NoDRIP—Apply NoDrip to a small area, compare the results with uncovered portions

Send for NoDrip Handbook

J. W. MORTELL CO.

526 BURCH ST. KANKAKEE, ILL.

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How to CUT COSTS in DRILLING

VAN DORN ¼" HOLGUN* $39.50

One of 25 Drills from ¼" to 1¼" capacity!

You can turn out drilling jobs faster, more accurately, at lower cost — when you give your men the *right* Drill for *every* job from the big Van Dorn Drill Line!

Van Dorn Drills give you: (1) Full power from Van Dorn - built motors that can't be stalled; (2) Extra-tough parts for years of service; (3) A choice of handles for easiest operation, a choice of speed, power and price in most sizes. See your nearby Van Dorn Distributor for details. Write for free catalog to: THE VAN DORN ELECTRIC TOOL CO., 762 Joppa Road, Towson 4, Md.

For Power Specify **"Van Dorn"** Portable Electric **TOOLS**

*Trade Mark Reg. U. S. Pat. Off.

Div. of Black & Decker Mfg. Co.

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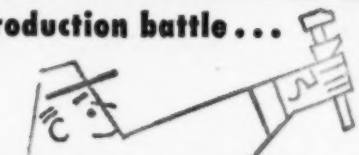
To win your Production battle...



with

Efficient Conveying Systems

The name to remember is...

ALVEY-FERGUSON

the original Since 1901

A-F Apron and Roller Conveyor for carrying billets from shearing machine to furnace, where they are converted into rough forgings, ready to be machined into shells.

THE ALVEY-FERGUSON COMPANY

Write for complete information

37 Disney St., Cincinnati 9, Ohio
Offices or representatives in principal cities

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Restore Broken Floors . . . F-A-S-T!

CONCRETE PATCH

SETS INSTANTLY!

TAMP SMOOTH! TRUCK OVER!

No traffic tie-ups! Simply shovel INSTANT-USE into hole, tamp and run traffic over immediately. Quick! Durable! Repair cracks and breaks in concrete floors . . . or make complete overlays. NOTE: Plasticizer makes INSTANT-USE easy to scoop out of container . . . easy to level, to tamp, to use! There's a Flexrock material for every floor condition—oil, acid, wet, dry! Tell us your problems!

MAIL COUPON for FREE TRIAL OFFER and HANDBOOK OF BUILDING MAINTENANCE

INSTANT-USE

FLEXROCK COMPANY (Offices in principal cities)
3603 Filbert St., Philadelphia 4, Pa.

Please send me complete INSTANT-USE information, details of TRIAL ORDER PLAN and HAND BOOK OF BUILDING MAINTENANCE—no obligation. (Clip and attach Coupon to Co. letterhead).

Name .....
Company .....
Address .....

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